THE WESTERN

MEDICAL & PHYSICAL JOURNAL.

MARCH, 1828.

ORIGINAL ESSAYS AND CASES.

ART. I.—*A remarkable case of* HYSTERIA, *associated with symptoms of* LYSSA, *with remarks, by* J. W. MONETT, M. D. *Washington, Miss.*

THE following singular case of Hysteria, from the analogy between its symptoms and those of Lyssa, tends strongly to confirm belief, that the latter may, in man, be produced spontaneously, or without infection from a rabid animal. And as the case partakes of the nature of both hysteria and rabies, it may justify an inference, that, like hysteria, rabies may occasionally proceed from gastric or general nervous irritation, as it often, undoubtedly does, among the canine tribe; although, when produced, it is communicable by innoculation.

The patient, TOM, is a servant boy about ten years old, apparently of a healthy, robust constitution; and, heretofore, has very seldom been sick or unable to work. He has never received any external violence to the head or spine; nor has he ever suffered, so far as I can learn, from the bite of either a healthy or rabid animal. His father, formerly, had been subject to epileptic fits, but had entirely recovered from them previous to Tom's birth. His mother, on account of domestic affliction in the loss of three children, had, during six months previous to her pregnancy with him, been almost entirely deranged, and was affected with extremely violent paroxysms of hysteria:

some of the symptoms of which, I am informed, were similar to those of her son; so that he may, very properly, be considered as possessing a strong hereditary predisposition to nervous disease.

On September 10th, having been previously employed in his usual business of picking cotton, he complained of pain in his head, which increasing, I was called, on the 12th, to prescribe for him. I found his pulse regular and natural; his respiration and the skin appeared natural also; but his appetite was depraved, and his countenance dull. A dose of Sul. Mag. and Ant. Tart. was administered, and a blister applied to the back of the neck. Next day the salts and tartar were repeated in broken doses.—Towards evening the pain in the head increased, and he was disposed to wander off from the house.—At night, the stupor became almost complete, and every half hour or hour, he was affected with spasms, preceded by sobbing and crying, with a melancholy countenance. The head was shaved and covered with a blister-plaster, which was not removed for two or three days; calomel and opium administered in repeated doses; warm bath, &c. used. On the 14th the warm bath was repeated several times; another emetic was exhibited, by which he discharged from the stomach half a point or more of a viscid albuminous fluid: at night had frequent spasms.—During the 15th, notwithstanding various remedies, he continued to have spasms at intervals of two or three hours, which became more severe in the evening.—To-day, when the paroxysm recurred, he evinced the strongest disposition to bite every person or object in reach, by snapping, extremely quick, at every thing that approached him; and having seized it, shakes it with his teeth violently. During these paroxysms his exertions were violent, and it required two or three persons to hold him, and prevent him from injuring himself and others with his teeth. In the absence of the spasms, complained of extreme hunger; and meat being presented to him, he devoured it voraciously; and, soon after, was attacked with very strong spasms. During 16th, spasms continued at regular intervals as yesterday: gave calomel, opium and camphor; used venesection, warm

bath, &c. without any perceptible advantage. Early on the 17th, immediately after a violent fit of spasms, gave a tea-spoon full of cinchona, and forty drops of laudanum, and repeated it every hour and an half during the day and night; in which time he took about ℥iss. of cinchona, and 400 drops of laudanum. The effect of this treatment was immediate; he had no return of spasms; talks incessantly, and with unusual wit and hilarity; and, contrary to his former disposition, has an invincible partiality for the company of white persons, and appears afraid of the blacks; and, although walking about, will not leave the presence of his mistress. His intellect is unusually vivid, with much uncommon wit. His appetite, notwithstanding the laudanum, is good; he also takes his medicine freely, and says he "wants to get well." To-day he observed, he should have no fit to-night, for he feels no pain in the head. On inquiry, says he knows when the fit is coming on: that it is preceded by pain in the head, which gradually extends until the whole body is affected, and then the spasms occur. He appears quite unwilling to speak of his past "fits," as he calls them. He frequently makes an unusual noise similar to the grunting of a hog, or an imperfect attempt to bark. At 8, P. M. is in a sound natural sleep, and fine perspiration. During the 18th continued the same medicine; but, in the evening, the stomach being debilitated by the laudanum, he threw up some of the Bark, &c.—On account of which, for cinchona, I substituted capsicum tea, during the 19th. On 20th omitted laudanum, and gave only three doses of Bark. At 8 o'clock, P. M. had another severe paroxysm of spasms, with frothing at the mouth. Resumed the laudanum and Bark during 21st and 22d; has no fit, but seems melancholy, and is extremely irritable, and trembles very much, as if alarmed when spoken to harshly. In this state he continued until the 26th, with various symptoms of hysteria; for which, gave him assafœtida, tinc. mur. ferri, shower-bath, &c., after which he gradually recovered.

Remarks.—As to the nature of this affection, I can only say that it was doubtless a variety of hysteria, accompanied with

unusual symptoms. Its seat was in the stomach, and consisted in a morbid, or depraved condition of that viscus, and was not the effect of irritation from extraneous matter; for no circumstance, in the whole course of the affection, would justify an inference that it proceeded from worms, or any substance taken by the mouth; nor could it be the effect of retained fœcal matter. The bark and laudanum obviated all the symptoms by removing the cause: i. e. by restoring tone to the organ, and, at the same time, allaying the local, as well as the general irritability. That which appeared most remarkable was, that the functions of organic life generally should be so little deranged; almost all appearing, at one time or another, entirely undisturbed by the gastric derangements. To me it evinces, that although the stomach may be the centre of sympathetic action, yet it does not uniformly command the organic or vital functions. Altogether I consider it a singular case—one in which the symptoms partook equally of hysteria and rabies; for at one stage, almost every symptom of rabies was present, even the aversion to water. The hysterical symptoms were unusually severe, indeed more so than any I have ever seen; and, for a while, I was apprehensive it would prove fatal.

ART. II.—*Remarks upon* LEUCORRHŒA,
By DR. LLOYD WARFIELD.

It is well known that many cases of Leucorrhœa are extremely obstinate. The most unmanageable, as far as I have observed, are connected with menorrhagia; and many of them seem to me, to be dependent on a tonic state of the general system, with uterine plethora.

That excessive discharges, whether from the mouth of the exhalants, or from ruptured capillaries, should originate in, and be sustained by, an increased tone, both in the local and general circulation, is a truth which has been but slowly admitted into the systems of medicine. Nothing but observation and experience could have brought us to believe the fact, as rea-

son and analogy would seem equally to oppose it. For if we consider that like causes should produce similar effects, then it it might be urged that the flow of blood in Haemoptysis, or Menorrhagia, should as effectually reduce the action of the blood vessels, as an equal loss of blood from an arm; and that, therefore, the Haemoptisis or Menorrhagia should check itself. Indeed so captivating and plausible is this reasoning, and so terrible is the idea of making an artificial outlet for the already exhausted fluids of the sotmach, that some physicians, to this day, adhere mainly to the astringent plan of treating every species of sanguineous Profluvia. But what do we learn by observation and experience? We see the Haemoptisis (for example) continue, although large quantities of blood have been lost, the pulse remaining active, and the patient losing muscular strength; while a few ounces of blood, drawn from the arm, will make a most decisive impression on the disease. And now, in relation to those species of Profluvia in which experience has not forced on us the above views, we are still opposing such reasoning as the above; and the disease under consideration is one, against which the argument may be used; but cases will place it upon the same grounds occupied by Hæmoptysis and Menorrhagia.

Again, if we resort to analogy on this subject, we should run counter to observation and experience. For as a state of local and general weakness is known to be favourable to an excess, in either the natural or morbid action of either the secernents or exhaling capillaries, so we should suppose, that the appearance of such excess should indicate an actual state of atony in the vessels from which the discharge flows. Our practice in Leucorrhœa is predicated, to this day, upon this view, and is considered hence as purely a local disease; and all our prescriptions are directed to obviate the general weakness induced by the continued discharge, and to check the discharge itself, by directly aiming our remedies at the weakened vessels pouring forth the matter of Leucorrhœa. That Leucorrhœa is very often caused by local and general atony, is not doubted; but that Leucorrhœa may be combined with a very opposite

state of both the local and general circulation, and, therefore, will require sometimes a very different treatment from that recommended by most of the systematic writers, the following case will sufficiently prove.—It is furnished by my own practice:

Mrs. ——, aged 25, applied, through her husband, in 1826, for a Leucorrhœa of five or six years standing. I received the following history:—She had menstruated regularly as to time, but profusely in quantity, and at the menstrual periods was generally confined to her bed, three or four days, labouring under pains in the head, back, hips and lower part of the abdomen, with excited pulse and feverishness. Coagulated blood frequently came from her at those periods. About one year before her marriage, Leucorrhœa made its appearance, without any alteration in the menstrual flux, and has continued until within two months of the present time; except during a period of seven months, in the year 1824, when she was pregnant.—In that year she had a long attack of bilious fever; after recovering from which, she, for the first time, became pregnant, but miscarried in the seventh month. The fluor albus again returned, and, also, the Menorrhagia, and, as a consequence upon them, barrenness. Nothing unusual in the character of the discharge, the quantity, or other local symptoms, has been noticed; but it is worthy of remark, that none of those distressing affections of the general system, so often connected with, and consequent upon, long continued and profuse discharges, have taken place. This lady retains all her youthful bloom and vigor, muscular strength, bouyancy of mind, natural appetite and healthful digestion, and has a strong and bold pulse.

She had been under the care of another physician, before application to me. I understood he had exhausted the catalogue of remedies generally directed for its cure. He had adopted the idea of an atonic state of the local and general circulatory systems. The various preparations of iron, with Bark, acids, vegetable and mineral astringents, balsams, general and local cold bathing, generous diet, bodily exercise on horseback and otherwise, chalybeate waters, and astringent injections, were all perseveringly used, in different ways and

and under different circumstances for six months, without the least amendment of her disease. What, now, must be done? The Materia Medica had been exhausted, and the patient not cured. One thing, I learned, she had not been subjected to, and Dr. Dewees had recommended it. I determined to put her under the influence of the Tr. of Lyttæ. Dr. Dewees recommends blood-letting as necessary to prepare the system for the impression of this medicine. I commenced bleeding her the middle of every month, taking three gills at first.—At the same time she was directed a purge every third day, consisting of two or three of the following pills, on going to bed every third night: ℞ Flor. Martial, 18 grs. Scammon, 12 grs. Aloet Scot. 12 grs. Pul. Jalap 15 grs. to be mixed and divided into 12 pills. They always operated well. For the purpose of keeping the parts clean, Castile Soap water was directed two or three times a day as an injection; and, as an astringent, the Red Oak bark decoction was used in the same manner. To favour the effects of bleeding and purging, low diet, gentle exercise, and early rising were insisted on. This course, and no other, was perseveringly pursued for four months. I bled her generally to nearly a pint. Soon after this course was begun, an amendment in the Menorrhagia and all its attendant symptoms was perceived. I now began to entertain hopes of curing both the Menorrhagia and Leucorrhœa by depletion alone; and this agreeable result was brought about in four months, at the end of which time she passed a menstrual period without any discharge, and has passed a second in the same way, with an entire cessation of the Leucorrhœa; and is thought, from all the circumstances to be in a pregnant state. Her general health is good, complaining of nothing but a sick and irritable stomach in the fore part of the day, apparently the result of her pregnancy.

As similar in its character and import, I beg leave to extract the following case, from the 1st Vol. of Coxe's Medical Museum, communicated by Dr. Burton. It is entitled "An account of the successful treatment of an obstinate and dangerous case of Menorrhagia and Fluor Albus:" He says, "on

April 27th, 1804, I was called to visit a lady, aged 24, in the Hemorrhagic (or Menorrhagic) state of fever. She had been married about five years, and had not enjoyed an exemption from periodical attacks of the Menorrhagia, and an uninterrupted discharge of the Whites for more than four years. The precussors were pain in the head and back, swelling of the external organs of generation, an itching and soreness in the vagina. The Hemorrhage was so copious, that it threatened extinction of life. Her husband informed me that she had taken the Cold Bath, Bark, Elixir of Vitriol, Columbo and all the tonics of the Materia Medica, agreeably to Dr. Cullen, without producing any sensible relief." The Dr. goes on to state that the proximate cause of this disease was a preternatural or morbid excitement in the blood vessels of the Uterus, and appears, further on, to hold out the idea of the existence of an inflammatory diathesis, to be subdued by blood-letting. In his plan of cure, he says, "I commenced the cure by bleeding twice a week for four weeks, and then excited a gentle salivation, and continued it for two weeks." "For the local complaints," he says, "I directed a weak solution of Sugar of Lead, to be injected four or five times a day." He goes on to say, "that the bleeding was directed to subdue the inflammatory diathesis, and the salivation to transfer morbid action from the Uterus to the salivary glands. In short, the course of treatment cured the patient of both the Menorrhagia and Leucorrhœa, and caused an improvement of her general health, and the removal of her barrenness. He farther directed her, during her pregnancy, to be bled twice a month, to prevent any ill consequence from the arresting discharges to which the system had become habituated.

These cases, analagous in all their important features, prove, first, that Menorrhagia and Leucorrhoea are often associated; second, that the state of the general and local circulating systems sustaining the one, sustains the other; third, that every attempt to cure the Leucorrhoea or Menorrhagia, considered as excessive discharges, depending upon relaxation or weakness in either the local or general circulation, failed; fourth, that

cases of Leucorrhoea, associated with Menorrhagia, may be dependent upon an entonic state of both the local and general circulation—and that, to effect a cure, that state must be subdued by the lancet and other depletions; fifth, that Leucorrhoea, connected with Menorrhagia, is productive of barrenness.

Paris, Ky. March, 1828.

SELECTED ESSAY.

[From the North American Medical Journal, No. 9.]

ARTICLE 1.—*On the Mechanism of Preternatural Joints, and on the Means of Cure.* By THOMAS T. HEWSON, M. D. Read before the College of Physicians, October 2, 1827.

IN every instance of fracture, the solution of continuity in the bone is accompanied by more or less laceration of the contiguous soft parts. As a necessary consequence of the rupture of the vessels, blood is effused, producing the swelling and ecchymosis observable on these occasions. When the injury does not extend to the absolute extinction of life in the part, a series of phenomena connected with the process of restoration is soon established; and although the operations, by which nature is enabled to restore the integrity of parts that have been injured, are in a great measure concealed, enough, however, has been revealed, by observation and experiment, to excite our interest and attention.

The first circumstance that has been noticed, is the enlargement of the capillaries; and with this increase of diameter are associated new and important powers, on which essentially depends the reunion of parts whose connexion has been dissolved. These vessels pour out a portion of their contents, which immediately, or very soon, assumes the concrete form; resembling, in all its sensible properties, the buffy coat so often observed on the surface of blood that has been drawn from the body, and consisting of fibrine, in which is entangled a still larger proportion of serum, or liquid albumen. The cellular texture loses its power of being separated into lamellæ, and the soft parts are united, in a close, firm manner, round the place of fracture. These phenomena commence at an early period: they have been observed even as early as the sixth hour, and are generally completed within the first forty-eight hours, when the parts are in the state of greatest tumefaction. After this period, the blood which had been effused is gradually absorbed, and the colour which it had imparted proportionably disappears. This change takes place more or

less rapidly, according to the quantity of blood effused, and to the activity of the absorbents. In a case of fractured tibia lately under my care, the discoloration was discernible in the injured limb until the close of the sixth week. But, under ordinary circumstances, it vanishes in a much shorter time. By the presence of the fibrine, which is now perfectly solid, the cellular texture acquires a degree of induration, that extends between the fasciculi of muscular fibres. In this state, neither the individual organization, nor even the nature of the several parts in the immediate vicinity of the fracture, can be distinguished. If examined in the field of a magnifying glass, the parts appear highly vascular, and the interstices observed in this net-work of vessels give to the part a mottled appearance; a circumstance, that, on many occasions, has been distinctly visible to the naked eye.

Occasionally, some of the muscular fibres are lacerated, and get entangled between the fractured extremities of the bones. Involved in coagulated blood, bruised and deprived of their due supplies from the circulation, these portions of the muscles become absorbed; and eventually not the slightest vestige can be discovered. The blood poured out in consequence of the rupture of the vessels, insinuates itself into the interstices between the fasciculi of muscular fibres; and the vessels distributed for the nutriment of these parts, are enlarged and greatly distended with blood. The muscles, especially those which pass immediately over the fracture, being surrounded by the indurated cellular texture, often acquire, though seldom before the tenth day, a remarkable degree of consistence, and a whitish gray colour. This is to be ascribed to the yet unorganized fibrine, which we have stated to be poured out at an early period after the injury has been inflicted. They retain this appearance as long as the indurated condition of the cellular texture continues. The parts thus become stiff; and, the muscles being rendered incapable of violent contractions, the fragments are less likely to be disturbed from the position in which they have been placed; whence may be drawn the practical advantage, of adjusting the limb and bringing the fragments into exact apposition, at an early period and before the fibrine is secreted.

Those who have experimented on the subject, have observed, that, from the fourth day, some of the muscles which passed over or were inserted near to the fracture, had become paler and denser

than those that were more remote; that, on the sixth day, the muscular fibres nearest to the fracture, resembled very much, in colour and consistence, the indurated cellular membrane, with which they were in fact almost confounded; and, lastly, that a very sensible alteration in this condition of the parts was discernible between the tenth and seventeenth days.

The periosteum, which closely invests the bones, necessarily gives way at the time when these are broken; and the rupture of this membrane corresponds with the place of fracture. If the extremities of the fractured bones ride or overlap one another, the periosteum is bruised where these are in contact: the injury which the membrane thus sustains, occasions its destruction through the whole extent of the surface where the bones overlap. According to Breschet, this denudation of the bones is often effected in a day, or even a few hours. The divided edges of the periosteum contract adhesions with the surrounding soft parts, and, in the vicinity of the fracture, this membrane soon acquires a deeper colour, and may be very easily separated from the bone where there is no tendinous or aponeurotic insertion.

The periosteum now acquires a high degree of vascularity, becomes swollen and indurated; and in the neighbourhood of the fracture the thickness equals nearly two-thirds of a line. In this state it adheres to the muscles and other soft parts, by means of the cellular membrane, thickened and loaded with fibrine, from which it can with difficulty be distinguished. It has likewise formed very firm adhesions, connected with the fractured extremities; and is even continued into the cartilaginous inequalities surrounding these extremities, and projecting beyond their level. In separating the periosteum, we tear away the substance interposed between the extremities of the fracture. It is this substance which we shall have occasion more fully to notice, as forming the nidus for the future callus.

The membrane secreting and constituting the involucrum of the marrow is likewise ruptured with the bone, and the blood is effused from the numerous vessels distributed through its substance. This effused blood, if considerable, forms a coagulum, which is continuous with the medulla. The softness of this substance, and the violence inflicted at the time of the injury, afford a ready explanation of the ecchymosis observed in the texture of the marrow, during the early period succeeding the fracture. This transition from the natural

state, is marked by little spots of extravasated blood, that become more sparse in proportion as the distance from the fracture increases.

From the time when the fracture is inflicted, until the fourth day, the colour of the marrow is of a brownish purple hue, owing to the presence of the extravasated blood: it then changes to a brighter red, as the extravasated blood is absorbed, and numerous vessels have acquired a greater capacity, and now carry red blood, in consequence of the inflammation which has been established.

The medullary canal is diminished in its calibre, by the presence of a reddish, fleshy substance, continuous with the bone, denser, and more firmly adhering to the edges of the fracture: in the further progress this substance becomes cartilaginous, and then osseous.

At first, the surfaces of the fractured extremities have a slight covering of coagulated blood. On the second day, in addition to this substance, a ropy and slighty viscous matter may be observed, in very small quantity, extended over the surface of the fracture, and cementing them together. On the fourth day, this substance is accumulated in larger quantity, and exhibits unequivocal signs of organization. From the tenth to the fourteenth day, the reticular character of the substance interposed between the two surfaces of the fracture becomes more evident. It is stated to be more abundant, more consistent, more tenacious, though less red in colour, over the medullary canal.

The soft parts thus blended together, near the fracture, form a kind of knob or protuberance, in which the broken ends of the bones are confined, and, as it were, buried. This swelling or tumour is not, at first, distinctly limited, nor is it rendered so until the close of the third or the beginning of the fourth week, when a gradual absorption in the cellular texture takes place, proceeding from without inwards; and it is then confined to the fracture, constituting the tumour of the callus, and insulating the fracture.—From this period it is no longer confounded with the surrounding parts: the muscles, however, are observed to retain their adhesions. Before the twentieth day, the muscles and their fasciæ, that pass directly over the fracture, are never separated from the callus by means of a properly organized cellular texture. The tendons are sometimes lodged, for a certain extent, in a kind of canal, which embraces them on every side, and in which they are capable of moving. In other instances, they run in grooves on the surface of the callus.

Breschet describes the callus as a solid mass, into the composition of which, independently of the osseous fragments, there enter two principal textures, distinguished by their colour and consistence. The one is exterior, more or less white, very firm, and closely resembling a fibrous or fibro-cartilaginous substance, without, however, presenting any red fibres, but in which can be readily distinguished parts purely cartilaginous. This substance, covering the fracture, and extending to a certain distance beyond it, generally exhibits, at this period, in the parts most remote from the fracture, the hardness and other characters of bone.

The second principal texture is described by him, as situated under the first or towards the centre of the tumour, is red, or approaching to a violet colour, according to the light in which it is viewed: it is soft and easily torn, spreading over the surface of each fragment, and so closely applied to the centre of each of these surfaces, that it is impossible to denude completely this part of the bone.

The substance which was noticed as occupying the medullary canal, gradually increases in quantity until the canal is entirely obliterated. In the further progress, this substance acquires the character and consistence of bone, after having passed rapidly through the cartilaginous state. It therefore varies in appearance, according to the period in which the examination is made. Sometimes it is extremely compact; and when the reticular or cancellated texture commences, it is seen most distinctly towards the distal extremity of the fracture. It is of a reddish colour, particularly when the cancellæ can be observed.

The ossification of the callus commences at the extremities, extends progressively towards the fracture, and finally pervades the whole tumour. This process commences about the fourth week; but the period when the callus is completely ossified is extremely variable.

The continual transition of the red intermediate substance into fibro-cartilaginous matter, and of this again into cartilage and bone, proceeds more or less rapidly, according to the constitution of the individual, and the peculiar circumstances of the case.

The diminution of the callus, as well as the ossification of its substances, appears earlier in the medullary canal than in other parts of the tumour; for the complete disappearance of the new osseous substance which had filled up the medullary cavity, and

the restoration of that cavity to its full extent, are phenomena which occur long before there is any visible diminution of the callus.

As soon as the substance which causes the obliteration of the medullary canal has attained the consistence of bone, it becomes more or less cancellated. The cancellæ are at first very small; they subsequently enlarge, and coalesce, the partitions separating them being gradually absorbed, and the whole substance is converted into a complete bony network; which, however, soon disappears, and all traces of the ossification of the medullary canal vanish.

In that portion of the callus which is to constitute the more permanent bond of union, the cells are developed in proportion as the bony points unite to form the centres of ossification. And as these cells enlarge, and become less numerous; there is formed a compact osseous lamina, which increases in thickness with the gradual diminution of the tumour.

Through some defect or interruption in the process, it occasionally happens, that a perfect osseous union is not effected, and the bones admit of more or less motion, constituting what has been denominated a false or preternatural joint. In all the moveable articulations appertaining to the higher order of animals, we find the extremities of the bones possessed of a smooth, polished covering of cartilage, and the opposing surfaces lubricated with synovia, enclosed in a regular capsule. There are not wanting many writers of eminence, who have described, I believe rather from speculation than from actual observation, these preternatural joints as possessing all the characters of the moveable articulations.—But, in support of such doctrine, I know of no record of the parts having been critically examined, so as to demonstrate the fact. Mr. S. Cooper, in his Surgical Dictionary, a work replete with valuable information, relating to the pathology and treatment of fractures, states, that in the Hunterian Museum there is a preparation of the forearm, where the resemblance to the natural articulation is greater than what Boyer has seen in other situations. But this expression is very ambiguous, and does not convey the positive information which the subject requires. As far as I have had an opportunity of examining the parts, I have uniformly found a firm ligamentous substance, extending from the fractured surfaces, and constituting the bond of union. The case adduced by Mr. Cooper,

on the authority of Mr. Earle, does not invalidate this position: it merely affords evidence that the fragments were removed beyond the spheres of their mutual action, and that no kind of union took place. The case is too interesting not to be noticed here.—He says, "I have seen a woman, under Sir James Earle, in the above hospital, (St. Bartholomew's) whose os brachii did not unite in the least, though it had been broken several months. Every attempt to move the bone occasioned excruciating torture. The woman died of some illness in the hospital; and, on dissecting the arm, the cause of the fracture not having united was found to arise from the upper sharp pointed extremity of the lower portion of the broken bone having been forcibly drawn up by the muscles and penetrated the substance of the piceps, in which it still remained." In Mundy's case, on whom I performed the operation as proposed by Mr. White, of Manchester, the figure of the two portions of the os humeri might, on a superficial examination, have been considered as possessing a perfect resemblance to a natural joint. The seat of the fracture was just below the insertion of the deltoid muscle; the upper portion was formed into a single cone, lodged between two cones, projecting from the lower portion, corresponding to the origin of the prachiæus internus, which, arising by two slips has likewise received, not inaptly, the name of bicornis. These three cones, when deprived of the dense, ligamentous substance, by which they were cemented, presented a faint resemblance to a ball and socket; and in the separated state, might have imposed on those who did not critically examine the ends of the bone. In the majority of cases there has been found, extending from each fragment, a substance, in consistence and texture, resembling the cartilage interposed between the bodies of the vertebræ. This substance being flexible, the degree of motion observed between the pieces of bone is easily explained; and such structure is in perfect accord with the history given of the disfferent stages of the process for the reunion of bones that have been broken, and perfectly consistent with the known operations of nature; whereas the doctrine of a complete resemblance of these false joints to the natural articulations would imply additional powers, and the production of new parts, of which we have no example. On this occasion I shall avail myself, in confirmation of these views, of the authority of Boyer, whose expressions on the mechanism of these joints are, "I have never found in their structure, any thing which could be

compared with an articulation: neither capsular ligament, nor smooth cartilaginous surfaces. On the contrary, I have invariably found in the false joints of the thigh bone and humerus, which I have had an opportunity of dissecting, a fibrous, ligamentious substance, extending from one fragment to the other; and it is very probable that, with some modifications, it is the same with all the other cases which I have not seen."

Having endeavoured to ascertain the mechanism which prevails where there is an imperfect consolidation of the callus, our attention will very probably be directed to the investigation of the causes of this failure. The functions of particular parts are so intimately connected with the healthy condition of the whole system, that any disturbance of the general health must have considerable influence on the process by which the union of fractures is to be accomplished. Accordingly, a languid and inert state has been assigned as one of the causes. Its operation must necessarily be temporary, and will cease in proportion as the tone and vigour of the body are restored. This hypothesis may indeed be admitted in explanation of those cases of fracture where the union is suspended for a time, and yet becomes perfectly solid when the patient has been relieved from an irksome confinement, and allowed to enjoy the invigorating influence of air and exercise. These remarks apply equally to certain morbid conditions of the body, as syphilis, scurvy, &c. which have been occasionally adduced to explain the formation of an imperfect callus; for when such disorders of the constitution have been corrected, the bones have been observed to become firmly united.

In fractures which have occurred in pregnant females, it has been remarked, that the union has taken place very slowly, and, in some instances, that it has not been completed until after parturition.—The operation of this cause is necessarily confined to the sex, and is even in them extremely partial.

When the bones have been broken, the coaptation of the fragments, and the due retention of them in a state of rest, are considered as essentially contributing to the perfect union. The production of a preternatural joint has, therefore, been, by many writers, ascribed to negligence on the part of the practitioner, or to restlessness in the patient. But in cases of compound fracture, the treatment generally requires that the limb be moved every day, and the relative position of the fragments is, consequently, more

frequently disturbed than can occur in the treatment of simple fractures; and yet an imperfect consolidation of the callus is not more common in fractures of the first description. And the influence of this cause cannot be admitted in those cases of fracture, as of the leg, where the fibula has united, while in the tibia the union has not been completed. The case of Peckup, as recorded by Mr. WHITE, is illustrative of this kind of irregularity in the union of the two bones: and three cases of the same kind have come under my notice, one of which I shall have occasion to mention in a subsequent part of this essay.

This review, however humiliating the reflection, is not calculated to afford any one precise information respecting the object of our inquiry. But the improvement of medical science has not been much advanced by the substitution of theories unsustained by the phenomena with which we are acquainted. And although we remain ignorant of the causes which prevent the consolidation of the fracture, we are not altogether unprovided with means for remedying the defect, and for restoring the parts to the condition fitted for the due performance of all their functions.

The most ancient method of treatment is that recommended by CELSUS, who directs that the two portions of bone be forcibly rubbed against each other, so as to excite inflammation and a deposition of osseous matter. Mr. WHITE records a case of broken thigh bone, where the cure was effected by the patient getting up and attempting to walk, while the limb was confined in strong leather splints. This practice was advised by Mr. HUNTER, and has received the sanction of other eminent surgeons. The success, however, appears to have been very limited; and the majority of persons with disunited fractures were doomed to the inconvenience of a useless limb, or were compelled to submit to its amputation. With the hope of obviating these severe alternatives, in the year 1760, Mr. WHITE proposed, in the case of Robert Elliot, a healthy lad of nine years, the following operation: by making a longitudinal incision down to the bone, by bringing out the ends of it, which might be done with great ease, as the arm was flexible, and cutting it off either with the saw or pincers, and then replacing the two portions of bone, and pursuing the treatment as in compound fracture. In this instance a perfect union was established; and similar results have occasionally been obtained by other surgeons, but the success has been by no means uniform. The operation is, unquestionably,

severe, requires a very cautious procedure through the different steps, and occupying considerable time, necessarily subjects the patient to long continued pain, and all that distress which is usually felt when cutting instruments are employed. The difficulties, the danger, and the frequent ill success of this operation, suggested to Dr. Physick the propriety of adopting a different mode of treatment. The process of passing a seton into the natural cavities, with the view of producing permanent adhesions between the contained and containing parts, has been frequently resorted to. In the radical cure of hydrocele, and in the treatment of extensive abscesses, surgeons have long been in the habit of introducing setons, with the view of exciting granulations and promoting adhesions between opposite surfaces. Moreover, the records of surgery afford abundant proof of anchylosis having been produced, by setons passed into the natural joints, in the treatment of the diseases with which these parts were affected. It was in the year 1802, that Dr. Physick had an opportunity of treating a disunited fracture of the humerus by seton; and, in the course of five months, the union was completed, and the man was discharged from the Pennsylvania Hospital, enjoying the full use of his arm. Since the above period, this mode of treatment has been frequently employed, both in this country and in Europe; and, I believe, with pretty general success. The operation of passing the seton was, however, twice ineffectually performed by Dr. Parish in the case of Mundy; and the failure in this instance, I think, proves that it is not adapted to fractures presenting irregular surfaces. After this failure, desirous that no means should be left untried by which a reasonable hope might be entertained of the man's recovering the use of his arm, it was determined, in a consultation, in which all the surgeons of the house concurred, that the operation of sawing off the ununited extremities of the bone should be performed. The man bore this very painful operation with admirable fortitude, and after a lapse of four months the union was completed and the powers of the limb restored.

In addition to these means, Dr. Hartshorn has recommended the application of caustic, in the instance of the superficial bones, as the tibia and ulna, so as to act immediately on the part where the fracture was seated. In the deeper seated bones, the influence of the caustic will be extended through the muscles and other coverings of soft parts to the imperfect callus, exciting the healthy

actions in a manner corresponding to what we observe in the treatment of many diseased joints. In illustration of this mode of treatment, I beg leave to offer the following case; which, in other respects, is not altogether deficient in interest, as it affords an example of disunited fracture in a person of sound constitution, and at the most vigorous time of life.

Case.—Isaac Hervy, aged 35 years, of florid complexion, and of square stature, was admitted into the Pennsylvania Hospital, on the 15th of March, 1827, on account of an imperfect union of the tibia, near to its centre. In August, 1818, both bones of his leg were broken. He was subjected to a severe antiphlogistic treatment, and lost several pounds of blood. It was not until six weeks after the accident that he was allowed any portion of animal food. When admitted, he was unable to walk without the assistance of crutches, and he experienced great pain when he attempted to rest on the limb. On the 23d of March, a week after his admission, I made a transverse incision through the integuments down to the preternatural joint; I then removed a considerable portion of the ligamentous substance constituting the bond of union, after which I applied the caustic potash to the surface which had been exposed. This done, the part was covered with a poultice, and the limb put at rest. The succeeding day the man experienced considerable pain, accompanied by convulsive twitchings of the leg. These were relieved by moderate doses of opium. On the 7th day, inflammation and swelling came on, but subsided with a free suppuration, that proceeded from behind the tibia. In eight weeks the wound had cicatrized; and, at the end of twelve weeks, the man left the hospital, the tibia, apparently, perfectly united.

ORIGINAL REVIEW.

—

ART. IV.—*An essay on Morbid Sensibility of the Stomach and Bowels, as the proximate cause or characteristic condition of Indigestion, Nervous Irritability, Mental Despondency, Hypochondriasis, &c. &c. To which are prefixed Observations on the Diseases and Regimen of Invalids, on their return from hot, unhealthy climates.* By JAMES JOHNSON, M. D. *of the Royal College of Physicians, &c. Phil. B. and T. Kite*, 1827. *pp.* 154. 12*mo.*

The first part of this short but comprehensive little work, treats of the broken-down constitutions with which so many natives of the temporate zone return, from a residence in the torrid; and as the ingenious author is himself of the number, his observations are entitled to much attention. Liver affections, Dysentery, Diarrhœa and lingering Fever, are the maladies with which these adventurers generally revisit their native land, in the hope, too often illusory, of being restored.—Two causes especially conspire to disappoint the invalid,—the coldness of the climate, and indulgence in diet and drink of a stimulating kind. They both tend to awaken active inflammation. This, according to our author, is generally in the lungs; but it may also be in the abdominal viscera and in the joints.—Hot climates produce diseases of the liver; cold climates of the lungs; but maladies of the liver occasion pulmonary disorders; and thus, when the invalid returns to the north, two distinct causes operate to bring upon him an affection of the chest. In the early stages, Dr. J. supposes this malady to be mere symptomatic disorder, of the mucous membrane of the lungs, which will cease, if the sub-diaphragmatic disease be subdued; but when more advanced, it acquires an existence, which may continue notwithstanding the removal of the latter complaints.

In evidence of this fact, every physician must have met with a variety of cases. Thus, in the disease called Dyspeptic Phthisis, we generally observe, long before the death of the patient, a great improvement in the condition of the digestive functions, while that of the pneumatic is every day becoming worse.—The disease is in fact transferred from the abdomen to the thorax. Our author, with propriety, insists on a close attention to the progress of the pulmonary distemper; for as it becomes more aggravated and organic læsions begin to occur, the treatment must no longer be directed to the abdominal disorders, but the indications taken from the state of the lungs themselves; and to discover this, he advises a resort to percussion; and, especially, auscultation as practised by Lænnec.—We are not prepared to go with our author in the declaration, that the stethoscope is one of the greatest inventions of the age; for, as we humbly conceive, it indicates what has taken place in the lungs, rather than what is occurring; still we regard it as an important diagnostic instrument, with the use of which every physician should be familiar. It can never fail to give him important assistance, in the inquiry, whether organic changes have taken place. But on the subject of these derivative pulmonary affections, let the author speak for himself:

"Before quitting the subject of the homeward-bound voyage, I cannot help saying a few words more on a topic which has been already touched on—namely, those affections of the chest which are originally induced by disease of the liver, or of the digestive organs generally, and which have been called "dyspeptic phthisis," "stomach cough," &c. Many valuable lives are annually lost by treating these complaints as purely symptomatic, when they have actually become fixed diseases in the lungs or other parts within the chest.—When the disease has passed the boundary, and become independent of its original cause, which it not unfrequently does, then I maintain, from the most unquestionable evidence, that it is aggravated rather than alleviated by the remedies employed for the cure of the original complaint. Modern investigations (uscultation and percussion) have now given us the means of ascertaining with the greatest accuracy, whether there be or be not organic affection of the lungs or heart.—The medical practitioner, therefore, who has the charge of the invalid on the voyage, or who first sees him on his reaching Europe, should not neglect to examine the chest most scrupulously, wherever there

is cough, difficulty of breathing, or irregularity in the circulation; and, if any disease be detected there, the hepatic or stomach affection should be made quite a secondary consideration, and every effort should be used to remedy the more dangerous malady that has supervened.—A few days exposure to a cold or variable atmosphere may render the *latter* incurable, and therefore, seclusion in a regulated temperature should be enjoined, while local bleeding, blistering, and antimonials, are substituted for mercurials and other measures pursued for the cure of the abdominal disorder. The invalid should be recommended to confine himself to his cabin, if on the voyage; or within doors, if landed, in the most sheltered situation which the country can present. It is really lamentable to see men returned from a tropical climate, walking about the streets of London, or going to places of amusement in the cold raw evenings of winter, while the hacking cough, emaciated figure, and variegated countenance, proclaim a condition of the lungs which ill comports with this exposure to the vicissitudes of a northern climate.

The pulmonic affection which is caused by and supervenes on derangement of the liver and digestive organs, may occasionally be discriminated, especially in the early stage, from that which commences originally in the chest, and proceeds from scrofula, or phthisical disposition of the constitution. The cough is at first dry, or only accompanied by a trifling expectoration of mucus; the spirits are more depressed; the countenance more sallow than in the idiopathic forms of pulmonary disease. The paroxysms of cough are generally after eating, and early in the morning; and lying over on the *left* side is apt to excite cough when in bed.

In the progress of the disease, the expectoration becomes more copious, and, from being limpid or glairy, begins to exhibit some suspicious points of a purulent character. This last character gradually becomes more predominant, as the disease advances, and occasionally some streaks of blood are seen. In the commencement of the disease, and consequently where the cough and other phenomena are merely symptomatic of disorder in another quarter, the patient can expand his chest, and go up an ascent with much less breathlessness than in cases where phthisis is advancing in consequence of a previously tuburculated state of the lungs. In the dyspeptic pulmonary affection, in short, it is the mucous membrane which is generally engaged, especially at the beginning, and, therefore, the pulmonary structure is previous to the air. In the more advanced stages, the parenchymatous tissue of the lungs becomes condensed, or hepatised; and the mucous membrane of the trachea and bronchia organically changed, so as to throw out puriform matter. If there be any disposition to scrofula or tubercles, this disposition is likely to be ex-

cited into action by the sympathetic irritation, and then phthisis, of the common and fatal kind, will soon be developed.

In this insidious and dangerous symptomatic disorder of the chest, there is often little or no pain in any fixed point; but there is not unfrequently an uneasy sensation under the sternum; or a dull pain at the pit of the stomach; or fugitive pains, apparently of a muscular character, in various parts of the thorax, or even in the limbs, the spine, &c. It is probable that these are referrible to the disorder of the digestive organs rather than to the affection of the respiratory apparatus. The fever does not take on the regular hectic form so early in the dyspeptic as in the idiopathic phthisis, nor is the emaciation so rapid.

It will be evident to the medical practitioner that these are only *modified* symptoms of idiopathic pulmonary disease, and consequently offer no certain criterion that the disease is symptomatic of the derangement of the digestive organs. The presence of this last derangement, however, as indicated by flatulence, irregularity of bowels, diseased secretions, furred tongue, loss of appetite, tenderness and fullness of the epigastrium, and a host of nervous and hypochondriacal phenomena, will strengthen the diagnosis. But the grand object is to determine the period when *symptomatic disorder* is passing into the state of *actual disease;* and this, I maintain, cannot be done by any investigation of symptoms, however minute, short of exploration of the chest by means of auscultation and percussion. Yet, on this distinction between the two states, the whole question of treatment hinges." pp. 32—33—34—35.

Let us recur, however, to the author's treatment of some of the abdominal affections which precede the pulmonary.

"If the invalid only labours under that debility produced by fever and the remedies used for it, the sea-air and the gradual increase of tone in the digestive organs will generally be sufficient to renew the strength, under the caution above-mentioned respecting diet. In such cases it can rarely be prudent to exhibit direct tonics at the beginning of the voyage. A warm bitter is quite sufficient, as equal parts of infusion of ginger and gentian, with four or five grains of carbonate of soda, and a drachm or two of any bitter tincture in each dose. The bowels should be regulated by mild aperients that do not produce thin or watery discharges—an operation which should be avoided, but which, I am sorry to say, continues to do infinite mischief. Many practitioners and patients are absolutely infatuated with the benefit to be derived from the blue pill at night, and the black dose in the morning. This medicine certainly sweeps away abundance of thin, fetid, and unhealthy secretions, and the patient feels lighter and

more comfortable for a time; but a repetition of the practice produces the very secretions which it is designed to carry off or prevent. After clearing the bowels in this way, the great object is to procure *formed* motions, if possible, and that not oftener than once in 24 hours. That medicine which goes slowly and without irritation along the intestinal canal, permitting the nutriment to be taken up by the absorbents, and gently stimulating the large intestines to discharge the useless residue, is the one to which we should have recourse. Aloes is the basis of such medicine; but as, in the class of patients now under consideration, there is generally a defective or vitiated condition of the billary secretion, and an irritable state of the gastric and intestinal nerves, together with a torpid skin, it is necessary to combine other medicines with the aloes. A grain of blue pill, three or four grains of extract of hyosciamus, and a quarter of a grain of ipecacuan, combined with as much aloes as is sufficient to move the bowels once daily, will be found a valuable form of aperient for the invalid on the voyage home. The hyosciamus allays the morbid irritability of the nerves of the digestive tube; the blue pill gently excites the hepatic secretion as well as the pancreatic and gastric; the ipecacuan acts mildly on the skin; while the aloes carries the whole slowly along the canal, and finally expels the fæcal remains in the course of the ensuing day. Some little time may be necessary to ascertain the proportions of these medicines that may suit individual cases; but there can be little difficulty, in obtaining the proper result in the end. It is supposed that a disposition to hæmorrhoids is an insuperable objection to aloes, or the compound extract of colocynth. This has been proved to be an error, and aloes is now commonly given by some of the best London practitioners for hæmorrhoids. It is *too much purging* that increases and irritates piles rather than the *kind of purgative*. Where it is desirous to procure one free and copious operation in the morning, a common seidlitz powder taken at 7 o'clock, and before breakfast, will pretty certainly have this effect.

If the tropical invalid continues to be teazed with regular or irregular paroxysms of fever, in spite of the above means, the sea-air, and strict regimen; then we must have recourse to certain specifics, and, above all, to the sulphate of quinine, a medicine which is indeed of singular efficacy, when properly managed, in many of those morbid conditions of the digestive organs, resulting from the influence of tropical climates. The doses, however, should be small in the cases now under consideration, where there is generally some obstruction or congestion in the liver or spleen. The surgeon should attentively examine the state of these viscera, and by local detractions of blood and counter-irritation, remove or lessen those affections on which the returns of the febrile paroxysm depend. When these organs are secured by such means, then from one to three grains of the quinine

should be given every six hours, during the intermissions, in an infusion of bark, quassia, or gentian; and neither the surgeon nor patient should be over anxious to stop at once these paroxysms by larger doses of the medicine. It is far better gradually to give tone to the whole digestive apparatus, while the secretions of the glandular viscera are slowly improved by the mild aperient above-mentioned. The attacks, at first mitigated and ultimately stopped, in this slow manner, will be far less liable to recur, than when overwhelmed suddenly by such powerful tonics as the quinine and arsenic in large doses. The invalid, however, ought to continue the use of quinine, in conjunction with bitters and aperients, for a considerable time after all periodical accessions have ceased, since changes of weather, irregularities in diet, and many other causes are very apt to reproduce the paroysms." pp. 17—18—19.

As Diarrhœa is by no means an uncommon malady, in those who visit or reside as emigrants in Louisiana, we shall extract the following:—

"Bowel-complaint is one of the most common diseases under which an invalid labours when embarking for Europe. It is one, too, which is seldom cured on the voyage home. After repeated attacks of dysentary or hepatitis, the mucous membrane of the colon and rectum is actually altered in structure, while that of the small intestines continues highly irritable for a long time. A large quantity of mucus and of very morbid secretions is constantly poured out from these surfaces, and their irritability will not permit the presence of food or fæces, as in a healthy condition of the alimentary canal. In those who die of dysentery, we find ulcerations in the colon and rectum, with thickening and other lesions of the coats of these tubes. In those, therefore, who have presented the same *symptoms*, but who have been fortunate enough to survive, there is every reason to believe that ulcerations had existed, or do exist, as, indeed, has been proved by dissection. Ulceration of the intestines may take place without any discharge from the bowels, or particular pain that would indicate such a serious malady, as is proved by finding extensive ulcers in the mucous membrane, where death has been occasioned by fever—and that, too, without any tenderness on pressure of the belley being evinced during life. Where there is discharge of mucus, blood, and puriform fluid, we may pretty certainly prognosticate that there is ulceration and other organic mischief in the coats of the lower bowels. This state will, of itself, keep up chronic diarrhœa or dysentery till the parts are restored to a sound condition—and, even after the structure becomes sound, the function, from long habit, will remain deranged, or easily rendered so by very slight causes.

But another and still more fertile source of chronic bowel-complaint is disordered function, or diseased structure of the liver; one effect of which is very commonly relaxation and irritability of the bowels, especially in a tropical climate, and for some time after returning to Europe. It is not necessary, in this place, to enquire into the reason why the function of the bowels should be so generally disturbed by disorder of the liver. The fact is well known to all who have practiced in tropical climates, and that is sufficient for the purpose, at present.

If the bowel-complaint be unaccompanied by hepatic affection, and merely kept up by disease or disorder in the bowels themselves, the treatment is less complicated, both on the passage home and subsequently in Europe, than where chronic hepatitis is present.

In the former case, or simple bowel complaint, the invalid has three-fourths of the treatment in his own hands, or in his own power. Have we any remedy to cure a chronic irritation, inflammation, or ulceration of the internal surface of the bowels? I believe not. Nature must do this. But we can withdraw those things which obstruct nature and keep up the disease. If any portion of external surface were in the above-mentioned condition, what would we do? The answer is plain. We would protect the part from extraneous irritation, and give it rest. Nature would do the remainder. This rule is equally applicable to bowel-complaints. The passage of the remains of our food over the irritable or diseased membranes, lining the bowels, causes pain, throws the intestines into increased action, and, in fact, produces the phenomena of chronic dysentery or diarrhœa. We cannot, it is true, prevent this entirely; but we can live upon that kind of food which affords not only the least *quantity* of residue, but the least irritating *kind* of residue. This object is obtained by living as much as possible on farinaceous food, as sago, arrow-root, gruel, tapioca, rice, panada, with animal jellies. It is evident that every thing that passes the stomach undigested must add to the complaint, and, therefore, the quantity of nourishment taken in should always be as small as is compatible with the support of life. Indeed, as was observed before, the less that is taken into the stomach, the more will be extracted from it by the digestive apparatus, and the more strength we will derive from it. As the organs of digestion are, in this complaint, greatly weakened, those substances which have any tendency to turn acid are particularly injurious and irritating, since the vital powers of the stomach and intestines are not sufficient to overrule the chemical laws that produce the fermentative process.—Hence vegetables and fruit are poison to the dysenteric invalid. The drink is also a matter of great importance. Wine is almost always injurious, and very weak brandy and water is the only stimulating

potation that should be indulged in. The less of this, too, the better. Rice water, with some spice, is the best drink; and as little fluid of any kind as possible should be taken into the stomach.

There is one important item in the management of bowel-complaints which is too often overlooked. This is the necessity of *quietude*. It is difficut to account for the circumstance, but it is an absolute fact, that *rest* and the *horizontal posture* are of more benefit in dysenteric affections, whether acute or chronic, than in many of those spinal diseases for which the patient is confined to a hard mattrass or an inclined plane. The action of the abdominal and other muscles sets in motion and augments the peristaltic action of the intestines, already in excess, and thus hurries along the remains of food, and produces many more evacuations than would otherwise take place in a state of quietude." pp. 22—2'—24—25.

Our limits are too confined for the introduction of every thing which relates to the treatment of this malady; but we are tempted to extract the paragraphs which relate to a particular indication of great importance in its management.

"But we must remember that there is a morbid *irritability* of the mucous surfaces of the stomach, and especially of the bowels, in consequence of which, things that, in health, would produce no sensation, much less inconvenience, cannot now be born without great discomfort. This state often obtains where no inflammation, no ulceration, no organic or perceptible change of structure in the parts themselves, has yet taken place, or remains after having one existed. Such conditions appertains to the nerves of the digestive organs, and can only be remedied through the nervous system. There are many ways of diminishing *morbid* nervous irritability—I say *morbid*, because those things which decrease *morbid* irritability or sensibility, will not always decrease natural or healthy irritability. I have remarked on one of the classes of means we are to use—the subduction of irritating food, and the correction or removal of irritating secretions. The direct reduction of morbid sensibility in the intestines is generally attempted by direct sedatives or anodynes—of which opium stands at the head. Without this valuable medicine, we can seldom succeed in the bowel-complaints of hot climates: but its use is attended with much inconvenience in many constitutions, and we should endeavour to make as little as possible serve the purpose of quieting the bowels, and lulling the sensibilities of their nerves. From half a grain to a grain of opium, combined with two or three of hyosciamus, a grain of blue pill, and half a grain of ipecacuan, will be found very beneficial every night at bed time, continued for a con-

siderable time, while, every second or third day a small dose of castor oil may be advantageously taken to remove any hardened fæces, or diseased secretions from the cells of the colon, in which they occasionally lurk, and keep up irritation in the whole line of the bowels.

When the invalid is harrassed through the day with frequent motions, consisting principally of slimy mucus, and attended with straining and tenesmus, he should keep as quiet and horizontal as possible, and take a spoonful of the following medicine after every relaxed motion.

℞. Pulv. Cretæ comb. ʒj
Confect. Aromat. . ʒj.
Tinct. Rhei, . . ʒij.
————Opii, . . ʒj.
Mucilaginis Acaciæ, ʒss.
Syr. Zingib. . . ʒij
Aquæ Cinnamoni. ʒiv.

Misce, fit Mistura, capiat coch. j. mah. post singulam sedam liquidam.

If the opium disagree, the tincture of hyosciamus may be substituted; but it is not so efficacious in restraining the discharges from the bowels.

There are many other medicinal substances which lessen morbid sensibility of the bowels besides those of the anodyne or narcotic class. It has long been known that *debility* is the parent of *irritability*. This is obvious to the most superficial observer. A familiar example is seen after all acute or inflammatory diseases. During the height of the fever or inflammation, for instance, the general excitement of the system prevents the feeling of weakness; but as soon as the excitement subsides, the patient is then sensible of his exhaustion, and becomes proverbially irritable. Nurses and other attendants on the sick, are aware that this irritability is a sign that the disease is subsiding or subsided, and always consider it as a favourable symptom.—Now what applies to the whole, applies also to a part. Wherever local disease has been established, and the structure or functions injured, *there* will be debility and irritability. By removing the *former*, we shall generally mitigate the *latter*. Tonics, therefore, when they can be borne, and where they do not induce too much excitement, are valuable means of blunting the morbid sensibility of the nerves.—But their bulk often proves a source of irritation to the stomach and bowels, hence the sulphate of quinine, properly managed, is superior

to all others, on account of its vast efficacy in so small a form. It is generally given in doses too large, by which an excitement is produced that renders it necessary to discontinue the medicine. The following form will be found an admirable mode of administering this remedy in chronic dysentery and diarrhœa.

℞. Tinct. Gentianæ c. . . ℥iss.
——Zingiberis . . .
——Camphoræ Comp. āā ℥ij.
Sulphatis Quininæ . gr. x.

ft. solutio, capiat coch. j minut. ter die, ex pauxillo aquæ tostæ.

The principal inconvenience that I have found to result from this remedy, is the increase of appetite, which soon follows, and which may induce the patient to indulge too freely in food. He ought to be put on his guard against this danger. The improvement in the state of digestion that results from the operation of this preparation on the stomach, will greatly conduce to the removal of irritation from the bowels, of which undigested food is a common source. Independent of this, the quinine will be found thus managed, to give tone to the whole line of the mucous membrane—to restrain the mucous discharges, and thus to directly lessen morbid sensibility in the nerves of these parts." pp. 28—29—30—31.

But let us return for a moment to the pulmonary affection:

"The treatment of the first stage of this disorder will be almost entirely directed against the hepatic and gastric affection on which it depends, and which will be fully detailed farther on. But even in this stage, much may be done by regimen, attention to dress, and regulation of temperature, in saving the organs of the chest from any increase of disorder in their function, or risk of change in their structure. This attention cannot injure the dyspeptic disorder, but, on the contrary, contribute to its removal; while a neglect on this point may allow a symptomatic to change into an organic disease, when the chance of recovery must be small indeed.

So few opportunities are afforded of ascertaining the state of the lungs, by dissection, in the early stage of stomach cough, or dyspeptic phthisis, (as it has been improperly called, for in the early stage it is not phthisis at all,) that we have no other means of knowing what is passing, than by auscultation and percussion. In those cases where the cough is purely symptomatic, and where there is no other disease of the chest, the sound will be clear in all parts, and the air will be heard permeating the parenchyma of the lungs in every direction.—

In several instances where I have lately examined the chest, and where there were only the phenomena of sympathetic affection, I have found some portions of lung, especially in the left side where no respiration could be heard, and where the sound was quite dull. By blistering, antimonials, colchicum, and seclusion, these points have regained their integrity of function, and the sound has returned.—Hence I am led to conclude, that one of the first changes that take place, where symptomatic is passing into structural disease, is a condensation of the parenchymatous substance of the lungs, by no means incompatible with restoration. It is probable, however, that the *very first change* is that of *irritation* of the mucous membrane of the trachea and bronchia into a low kind of *inflammation*, with corresponding change from a dry cough to one with some slight expectoration. Condensation or hepatization, as it is called, is probably the next change, and this supposition is, I think, strengthened by the fact, as ascertained by the stethoscope, that *hepatization* is the most common of all organic affections which we find in the lungs of people somewhat advanced in dyspeptic phthisis. In the ulterior stages, the lungs present, of course, on dissection and auscultation, the same phenomena as in regular idiopathic phthisis, so widely prevalent and so destructive in this country.

I shall adduce no more reasons than are pointed out above, why the medical attendant should minutely examine the state of the chest, where cough has supervened on disorder of the digestive organs. A delusive hope that the former may be safely overlooked, and that its removal will follow, as a matter of course, the improvement of the hepatic and digestive functions, may very often cause the practitioner a world of chagrin afterwards, when he finds his patient getting worse, and when an alteration in the treatment and prognosis will betray an error in the first diagnosis which was formed. Whereas, by careful examination of the chest, in the first instance, he will be enabled to form a more correct opinion, and consequently to give a more guarded prognosis; circumstances that will be very useful to him, should the disease take a serious turn in the sequel.

Should an examination of the thoracic organs shew the existence of organic disease in the lungs, no time should be lost in sending the patient to the most beneficial atmosphere, where the temperature should be regulated, and every possible means employed to arrest the progress of disease in the lungs. When a breach of structure is once made in the lungs, a warm climate can do no good, but rather increases the evil.

When puriform matter begins to issue from the lungs, whether from broken down tubercles, a common vomica, or a diseased surface of mucous membrane, I apprehend a great revolution is about to take

place in the general treatment. From several cases which have lately been under my own care, I am confident that the tonic plan, combined with local depletion and counter irritation, is infinitely superior to the asses milk and hermit's diet on which the phthisical patients are usually kept. In external scrofulous sores, our great object is to improve the general health, and increase the general strength, and why should not the same plan be pursued when there is an internal abscess? I fear we have too often confounded the fever of irritation, or, in other words, the phenomena of hectic, with inflammation, and that the means used to subdue this fever have too often increased it. Three cases lately fell under my notice, where the expectoration was purulent—the pulse ranging from 110 to 140—with hectic fever and perspirations, and, in short, all the symptoms of established phthisis; and yet where the whole of these phenomena disappeared under the administration of the sulphate of quinine in well acidulated infusion of roses, aided by light animal food; sponging the chest twice a day, with tepid vinegar and water; and obviating pain in the chest by blisters, antimonial ointment, and occasional leeching." pp. 36—37—38—39.

The concluding pages of the first part of this book, are devoted to an inquiry into the symptoms of organic disease of the liver. The author comes to the conclusion, that there is no sign, by which a change of structure can be *certainly* known, but "tangible enlargement" of the organ; and that this increase of size does not reveal to us the nature of the derangement of structure. The following symptoms, in his opinion, renders such a change probable, though they do not *demonstrate* its existence, nor indicate its character:

"Wasting of the body, a peculiar sallow and unhealthy aspect of countenance, permanent yellowness of the skin, derangement of the stomach and bowels, and dropsical effusions. None of these symptoms are *certain* criteria, nor even the whole of them combined; they merely afford presumptive proof. They may all, even the permanent jaundice, exist, where the scalpel can detect no material change of structure." pp. 45.

Derangement of the structure in the liver, our author believes to be far less common, than disordered function; and when it exists, except in the form of simple enlargement, we know of no remedy. The following are his observations on the means of arresting or removing the hypertrophy of the liver:

"Have we any, and what methods of removing enlargement of the liver, including various kinds of morbid growth? That simple enlargement of this organ is often removed by proper means, there can be no doubt; but that we have much power over tubercular or hydatid growths, is very questionable. In all kinds of enlargement, however, one great object is to cut off as much of the supply by which the morbid growth is fed, as possible, and the next is to promote the absorption of what has already taken place. There can be very little doubt that in most morbid growths, both in the liver and elsewhere, there is more or less increased activity of the blood-vessels of the part, or, in other words, inflammation, generally of the chronic kind. This slow or chronic hepatitis, by which the biliary organ is ultimately changed in structure, with induration and enlargement, shews itself more by derangement of function in the organ itself, and in those organs with which it is associated in office, together with a number of anomalous symptoms in the constitution at large, than by those symptoms which are common to slow inflammation in other structures of the body.—We must not expect to find quickness of pulse, heat of skin, thirst, and other inflammatory phenomena, attending this slow process of disorganization, though these are more easily excited by slight causes than where there is no local disease. The constitutional disturbance will be found to be more proportioned to the derangement of the biliary secretion, than to the change of structure or increase of bulk in the organ itself. Every practitioner must have seen instances where the liver descended low in the abdomen with little apparent inconvenience to the constitution, while, in other cases, where the same organ could scarcely be felt, the great deterioration of its function has produced the utmost distress of mind and body, and led to dropsical effusions, fevers, and other diseases destructive to life.—From this it will be evident that one great object in the treatment of structural disease of the liver, is to correct or improve its function; and, as an inflammatory irritation is at least a main cause both of the organic change that is going forward, and the disordered secretion that obtains, the removal of all agents that increase or keep up this irritation or inflammation, is a *sine qua non* in the treatment. As my object in this Essay is rather to render the indications simple and clear, than to enter into minute details of therapeutical management, I need only observe that, in the organic disease of which we are treating, our main chance of success lies in dietetic discipline. If the patient will not consent to abandon the luxuries of the table and the stimulation of wine and all fermented liquors, his fate is cast, and bloated dropsy, with all its horrors, will soon overtake him.

Rigid abstinence, in respect to food, and a total abandonment of every kind of vinous and spirituous potation, act in a triply beneficial

manner. This system diminishes the supply of nutriment to the morbid growth; withdraws stimulation from an already irritated or inflamed organ; and powerfully promotes the absorption of any interstitial deposit or other preternatural growth in the biliary apparatus. The result is an improvement in the function of the organ, and a general amelioration of the health, if at all within the reach of amelioration.

This is the fundamental principle of treatment in organic, as well as in functional disease. All the others are subordinate, but many of them very important. There are medicines which experience has proved to be capable of increasing the power of the absorbents in the removal of morbid growths. The principal one is mercury; but it must be very carefully managed in organic diseases. Mercurial frictions over the region of the liver should be preceded by several repetitions of a smaller or greater number of leeches, according to the exigency of the case, and the strength of the patient. After ten days or a fortnight, the leeches should be re-applied; then a crop of pustules brought out by tartarized antimony; and then again, the original measures renewed. A succession of changes in this way, do a great deal more than a long continued course of any one remedial process.* In the mean time, the secretions should be strictly attended to.—Gentle bitter aperients, as rhubarb combined with extract of chamomile or gentian, may be given, and even the sulphate of quinine, when the appetite and digestive powers are weak. These means will enable the patient to take in and digest a sufficient quantity of light and unirritating nutriment to sustain the constitution, while attempts are made to reduce the unnatural structure in the liver. In organic as well as functional disease of the biliary apparatus there is generally great derangement in the functions of the skin and the kidneys.—Colchicum and the taraxacum are very useful auxiliaries in such cases, while the greatest attention is to be paid to dress, and to avoiding night air and moisture. The saline aperient waters of Cheltenham, with the combined advantage of country air and mental amusement, will much contribute to improve the function of the liver, and, through that process, the structure. Too little attention is paid to the urinary secretion in hepatic diseases, though it is of the utmost impor-

*The propriety of a course of mercury, so as to affect the constitution, in tangible enlargements of the liver, must depend on the circumstances of the individual case; for it would be very dangerous to recommend it as a general rule, though nothing is more common than the association, in the mind, of an enlarged liver and a course of mercury. It is known, however, that mercury is more beneficial in functional, than in structural diseases of this organ.

tance, for dropsical effusions are the consequences which are most to be dreaded in all organic affections of the biliary apparatus, and they generally become the ultimate cause of the fatal termination. The taraxacum, in the form of expressed juice, or decoction of the root, with supertartrate of potass and spices, is a very valuable medicine, as it improves the biliary secretion, and acts both on the bowels and kidneys. It may be used as a good substitute for mercury, or, at all events, to lessen the quantity that might otherwise be considered necessary, of that active mineral. How far iodine may possess the power of reducing morbid growths in the liver, has not yet been ascertained; but it seems worthy of trial. In India, the actual cautery is much used by the native doctors, in enlargements both of the liver and spleen, especially of the latter; and often with benefit. Europeans do not like to submit to this *apparently* but not really formidable operation. The moxa might also be of some service." pp. 47—48—49—50.

Part the second is on Morbid Sensibility of the Stomach and Bowels. The first chapter is devoted to the proposition, that indigestion, dyspepsia and the multifarious group of nervous diseases, are dependent on morbid sensibility of the stomach and bowels; and the subject is prosecuted with as much earnestness, as if Whytt and Trotter had not long before ascribed almost every nervous affection to gastric and intestinal derangement.

The succeeding twenty or thirty pages are taken up with the history and *rationale* of the symptoms, in various parts of the body, which result from this condition of gastro-enteritic mucous membrane. They are the constitutional symptoms of dyspepsia—taking that term in its most extended signification. On several points our author is at odds with Dr. Philip. We shall transcribe one of his strictures:

"In respect to a symptom on which much stress has been laid by Dr. Philip, as marking an important stage of indigestion, namely, tenderness at the epigastrium, *on pressure*, I have already made some observations. That it exists in every stage of indigestion, I venture to affirm—and I will go one step farther, for I have no hesitation in averring that, if a whole regiment of soldiers were turned out and their epigastria pressed with the pointed fingers, and with the force which Dr. Philip uses, they would all wince, from the General downwards. With the following observation of Dr. Philip, I most cordi-

ally agree:—"The patient, in general, is not aware of this tenderness till it is pointed out by the physician." As for its being any criterion of organic disease in the liver, I have already expressed my conviction in the negative, and that it is characteristic of an inflammatory state, or incipient organic disease of the pyloric orifice of the stomach, I cannot, for several reasons, admit. One of these reasons is, that there is often much more tenderness in the epigastrium, in functional disorder, than in actual and unequivocal organic disease, as in scirrhus of the pylorus, for example. Another reason is, that this tenderness in the epigastrium is frequently, if not generally, relieved by bitters and mild tonics, with light animal food, which would not be the case if it depended on inflammatory action or incipient change of structure. A third reason is, that the dyspeptic patient, in whom this tenderness is so conspicuous, is proverbial for long life, and dies at last without any organic disease of the stomach." pp. 74—75.

"But to return to the subject of tenderness at the epigastrium. I contend, for the reason already stated, and for many others which I could adduce, that it is owing to *irritation* rather than inflammation, in the great majority of cases, and, consequently, that it is no criterion of the latter disease in this class of complaints. The indiscriminate application of leeches for its removal, has, to my knowledge, very often aggravated the disease. The counter-irritation of a blister or tartar-emetic plaster is far more effectual, and harmonizes with the true nature of the tenderness—*morbid sensibility* of the gastric and duodenal nerves. In my own person, and those of many others, I clearly ascertained this point, and found that tonics and bitters more effectually relieved this tenderness than leeches and blue pill.

The same may be said of *pain* in the stomach, independent of pressure, of which, by the bye, Dr. Philip takes no notice, in the second stage of indigestion. This is a very common feature of the disease; but affords no criterion of the existence of inflammation. On the contrary, it is far more severe in functional disorder than in unequivocal inflammation of the stomach, and is relieved, as every one knows, by tonics and even stimulants, rather than by leeches or depletion. It is not a little remarkable, that Dr. P. should bring forward pain on strong *pressure* as indicative of inflammation, while he passes over severe pain, which is so very commonly complained of, *independent* of pressure. But the fact is, that neither tenderness nor pain in the stomach of a dyspeptic patient affords any proof of inflammation in that organ." pp. 78.

The next chapter treats of the causes of morbid sensibility in the stomach and bowels, which are classed under two heads, *Physical and Moral.*

The former are improper impressions on the surface of the body by the heat, cold, moisture and aridity of the atmosphere; the inhalation and deglutition of a city air, "imbued with millions of miasmata, exhaled from every thing in the animal, vegetable and mineral kingdoms;" late hours; sedentary habits; lastly, abuses of diet and drinks. In regard to the last, we shall quote the following paragraph:

As, of all the *physical* causes of indigestion, our diet is the chief; so over this cause we fortunately have the greatest control. But sensuality and conviviality are perpetually seducing us from the paths of temperance, and seldom permit us to think of preserving health till we have lost it. It is quite needless to describe the kinds and quantities of food and drink that are injurious. I have shewn the rule by which each individual is to judge of this matter:—*any discomfort of body, any irritability or despondency of mind, succeeding food and drink, at the distance of an hour, a day, or even two or three days, may be regarded* (*other evident causes being absent*) *as a presumptive proof that the quantity has been too much, or the quality injurious.*

It is, however, far more frequently by the *quantity* of our food that the stomach is irritated and its nerves rendered morbidly sensible, than by the *quality*. In respect to this last, the vegetable world (however lauded by hermits and philosophers) is infinitely more prolific of irritation, and its consequence, morbid sensibility, than the animal kingdom. Farinaceous food, however, as gruel, for example, is an exception. Perhaps, of all species of food, this is the least irritating, and where a high degree of morbid sensibility prevails, it is often the only thing that can be borne. Tender animal food is next, in point of unirritating qualities, with the advantage of being more nutritious and less bulky. We see whole nations, as the Hindoos and Scotch, live and thrive on food almost exclusively farinaceous; while others, as in some parts of South America, live well upon animal food, and that almost alone.

In respect to drink, water is the only fluid which does not possess irritating, or at least, stimulating qualities; and in proportion as we rise on the scale of potation, from table beer to ardent spirits, in the same ratio we *educate* the stomach and bowels for that state of morbid sensibility, which, in civilized life, will sooner or later supervene.

The *physical* causes, then, of morbid sensibility of the nerves of the digestive organs, are atmospheric impressions on the external surface of the body; cutaneous disorders and their sudden retropulsion; disordered functions and diseased structures in other parts of the body, as in the brain, liver, &c. acting through the medium of sympathy on

the organs of digestion; food and drink in too large a *quantity*, or of too stimulating or indigestible a *quality*; acrid substances, as drastic purgatives, &c. taken into the stomach, or generated in the alimentary apparatus. Under these heads all, or almost all, the *physical* causes may be ranged. They are very numerous, and act through two principal channels; sympathy and direct application.

If it be asked how food, which is the natural stimulous of the nerves of the stomach and bowels, should render them morbidly sensible? I might answer, by asking another question: how does light, which is the natural stimulus of the optic nerve, render it morbidly sensible, if too brilliant and too long applied? The parallel, I think, is perfectly just.

The same reasoning is applicable to drink. If for water we substitute beer, wine, or spirits, we stimulate the nerves of the stomach, though some stomachs will bear this stimulation for many years, in succession, with little apparent injury. But not so in civilized life. By this stimulus the nerves are excited, and, in due time, irritated, so as to set up an habitual state of *morbid sensibility*. The doctrine of Brown, indeed, teaches us that this constant stimulation will ultimately wear out the excitability of the nerves, and render them *less sensible* than at first, to the same stimuli. It may be so; but I much doubt whether, in the last sad years of the confirmed drunkard, the *morbid sensibility* of the stomach and bowels is not still his unhappy lot. His appetite and powers of digestion are nearly extinguished, I grant; but the stomach becomes *more* irritable, in proportion as intemperance has been long-continued; till, at length, the presence of food cannot be borne without pain or sickness, and a very small quantity of that burning potation which he used to swallow so freely, now makes him quickly inebriated. These are facts which we see every day, and they strongly support the position I have laid down." pp. 92—93—94.

To enumerate the *moral* causes, would be to exhibit a catalogue of most of the circumstances of civilized society, of which dyspepsia, with its train of nervous distempers, seems to be an inevitable scourge. The following is the testimony which our author bears to the baleful energy of these causes in the British metropolis:

"The intellectual operations of man, in a state of high civilization, as compared with man in a state of nature, are as much more numerous as the mechanical arts of Europe out-number the simple contrivances of Otaheite. In such proportion, also, his susceptibility to moral impressions is augmented to an incalculable extent; and these

impressions, though first received by the sensorium, are all reflected on the organs of digestion, with more or less force, according to the state of predisposition in these organs. In this country, where man's relations with the world around him are multiplied beyond all example in any other country, in consequence of the intensity of interest attached to politics, religion, commerce, literature, and the arts; where the temporal concerns of an immense proportion of the population are in a state of perpetual vacillation; where spiritual affairs excite great anxiety in the minds of many; and where speculative risks are daily run by all classes, from the disposers of empires in Leadenhall Street, down to the potatoe-merchant of Covent Garden, it is really astonishing to observe the deleterious influence of these mental perturbations on the functions of the digestive organs. The operation of *physical* causes, numerous as these are, dwindles into complete insignificance, when compared with that of anxiety or tribulation of mind." p. 95.

We come to the Treatment of Morbid Sensibility of the digestive organs:

"I think I have proved that, whether there be ostensible disorder of the digestive function, or only the manifestation of morbid sympathies at a distance, or both at the same time, there is a morbid sensibility of the gastric and intestinal nerves; and hence, the first and most important indication is to lessen that sensibility, by withdrawing the causes of irritation, and applying such remedies as have the effect of diminishing irritability. If the sources of irritation could be completely withdrawn, Nature would generally effect a cure, without the assistance of medicine. But as these are sometimes of a moral, as well as a physical nature, we have but little power over the former, and are, therefore, only able to mitigate the symptoms. As it is on the regulation of the diet that our chief hopes of cure must rest, and as the system which I must insist on is rather rigid, I have endeavored to shew the reason why this apparently severe discipline is absolutely necessary, in order to stimulate the practitioner to fearlessly prescribe, and the patient to implicitly adopt it." pp. 108.

In the opinion of our author, diet offends more by its quantity than quality. The patient should take no more than is compatible with a sensation of well-being, however little that may be. If the patient cannot swallow more than half a pint of gruel in the twenty-four hours without bad feelings, he should limit himself to that quantity. His diet, however,

should be animal, rather than vegetable. Of the former, our author prefers poultry.

"From poultry, the dyspeptic should cautiously ascend to mutton or game, dressed in the simplest manner, and still with stale bread or biscuit. I would strongly advise that the *quantity* should never exceed half a pound in weight, even when that can be borne without a single unpleasant sensation succeeding. It is quite enough, and generally too much. The invalid will acquire a degree of strength and firmness, not fullness, of muscle on this quantity, which will, in time, surprise his friends, as well as himself. When arrived at the power of *digesting* six or eight ounces of mutton, he may vary the kind of animal matter considerably. Lamb, hare, tender beef, tripe; nay, venison may be taken, provided the golden rule be observed of always keeping to the *quantity* which produces *no languor after eating; no unpleasant sensation of mind or body during digestion.* I cannot urge this rule too strenuously on dyspeptics!—Their happiness; perhaps their welfare; and the happiness and welfare of many who are connected with them, depend on its strict observance.

It is needless to dwell on the endless catalogue of *improper dishes.* All are improper for the dyspeptic, or at least *dangerous*, that are not included in the above. Even a mealy potatoe will often irritate the nerves of the stomach (without any perceptible sensation *there*) and pass undigested, after producing a great deal of wretched feeling in distant parts of the body. The same may be said of every kind of fruit and vegetable. There is such a tendency to form acidity in the weak and irritable stomach; vegetable matters are so prone to acidify; and acid is so peculiarly offensive to the morbidly sensible nerves of the primæ viæ, that the dyspeptic invalid cannot be too much on his guard against fruit and vegetables of every description, however innocent they may seem to be, as connected with disagreeable feelings in the stomach itself. As for cheese, pickles, nuts, onions, and a variety of provocatives, they are rank poison in dyspepsia, and as such should be religiously avoided." pp. 113—114.

His opinions on the subject of *drink*, may be collected from the following paragraph:

"In respect to drink, my firm conviction is that water is the best; and till the habit of water-drinking can be acquired, the dilute mixture of brandy and water is the next best beverage. Still I have no objection to a glass or two of sherry, under the guidance of the criteria which I have so often laid down. The sooner, however, that every species of stimulating drink can be laid aside the better. A cup of

coffee after dinner is far preferable to wine. Malt liquors are quite out of the question." pp. 114—115.

The following sentences are entitled to great attention:

"When a man has escaped the miseries of dyspeptic feelings, and brought the sensibilities of his stomach to a natural state, by great attention to diet, he should be careful how he deviates from the rigid regimen by which he was restored to health. Nothing is so liable to relapse as dyspepsia; and indulgence in variety of dishes, or vegetables and fruit, will be almost certain of making the individual pay dear for the experiment. But it is of still more importance to keep to a low *quantity* of food. The least over-exertion of the stomach in mastering a larger proportion than it can easily digest, will be sure to re-kindle the morbid sympathies of the body, and the wretched feelings of the mind." p. 116.

On the Medicinal treatment he is brief. His therapeutick agents are chiefly those which maintain the peristaltic function, improve the state of the intestinal and biliary secretions, and diminish sensibility. To fulfil the first indication, he advises, in common with the most judicious physicians, the union of several articles; and gives a number of formulæ, which it is unnecessary to transcribe, as every practitioner, acquainted with the peculiar powers of different medicinal agents, can form them for himself. For diminishing morbid sensibility he places great reliance on henbane (Ext. Hyos. Nig.) and the nitrate of silver, combining the former, as occasion may require, with the laxatives and cathartics. His opinions of the nitrate of silver may be understood from the following extract:

"I know too well the fallacies of medicine to hold this remedy up as a specific for removing morbid irritability of the primæ viæ; but I think I may safely recommend it to the notice of my professional brethren, as an *auxiliary* in such cases, which it may be worth their while to try. It may be exhibited in the form of a pill at night, combined with any bitter or aperient extract. It will not interfere with the operation of almost any other medicine with which it is administered. Thus, half a grain of nitrate of silver, and two, three, or four, of extract of rhubarb, or, if the bowels require no assistance, extract of camomile or gentian, may be given every night at bed-time, and the dose gradually increased to two or three grains daily. No inconvenience can possibly result from the administration of the medicine.

if not continued beyond three months at a time. But I must remark on this, as on almost every other medicine, that unless the strictest attention be paid to diet, all medicines will fail. I particularly wish to be understood as recommending the nitrate of silver only as an auxiliary in a complaint which often baffles the practitioner, and where all auxiliaries are occasionally needful. The quinine may generally be given at the same time, not in pills, but in solution."—p. 128.

Of BITTERS he speaks in sound language, in the following paragraphs:

"In respect to bitters, as a class of remedies calculated to lessen morbid sensibility, and improve the function of digestion, there can be no doubt as to their utility, when given at the proper period. Of late years, I have found in the sulphate of quinine, all the good properties of the other bitters, devoid of their bulk and other nauseating qualities. It is, in fact, the only bitter which we need in general, and must ultimately supersede all others. In small doses, as half a grain, thrice a day, dissolved in a tea-spoonful of any bitter tincture, as the compound tincture of gentian, and diluted with a little toast and water, or any other fluid, it has an excellent effect on the stomach, soothing its nerves, cleaning the tongue, improving the appetite, strengthening the digestion, and imparting tone and tranquility to mind and body. If given in larger doses, especially at the beginning, it stimulates too powerfully, and may do harm. It should, therefore, not be exhibited, till iritation is lessened by the subduction of improper food and the administration of proper medicines, and then it should be commenced in small doses, very gradually increased, and its effects on the feelings watched as in respect to food. Managed in this way, it acts with surprising efficacy, and it is not unusual for it to produce such a change in the appearance of invalids in a month or two, that the same person is hardly known. It should not be given in pills, as it is apt to pass undigested in such forms, and thus disappoint the practitioner. Its effects are wanted on the *stomach* rather than on the *bowels*, and when medicines are designed to operate on the former organ, they should always be given in a liquid, or in a very soluble form, which is not the case with pills, unless made soft and used the day they are compounded." pp. 128—129.

Our last extract shall be a note, which, relating to an article recently recommended in this country, will not be without its interest:

"The white mustard-seed has lately attracted considerable attention; and I have known a great number of dyspeptic invalids take it;

some with advantage, others without much effect; and, in a very few instances, it appeared to do harm. It certainly is not calculated for a very irritable state of the gastric and intestinal nerves; since all spicy or hot aromatic substances are injurious in such cases. It is where the bowels are very torpid, the appetite bad, and the whole system languid and sluggish, that the white mustard-seed promises to be serviceable. If it keep the bowels open, and produce no unpleasant feeling in the somach, alimentary canal, or nervous system, it may be taken with safety. If it do not produce an aperient operation it can do little good, and may, perchance, do mischief." p. 122.

The work concludes with a reference to moral remedies, and a dissertation on Travelling; in which the able and amusing author has embodied his own experience and observations, in a journey of two months on the continent of Europe; but having already extended our notice of his work to the greatest admissible limits, we shall conclude by recommending it to the profession, as a book containing much useful, if not original matter, set forth in the simple and entertaining style, for which our author is no less distinguished than for his profound and practical views.

SELECTED INTELLIGENCE.

1. *Cure of Amenorrhœa and Fluor Albus.*—In the *Revue Médicale*, for July, are two papers on this subject. M. Th. Guibert, author of the first, after adverting to the means of restoring the menstrual flux in females of a sanguine temperament and plethoric habit, indicates the necessity of adopting remedies of a different nature in nervous and delicate subjects, and in a lymphatic temperament. He prefers, in the latter condition of things, the use of turpentine, as follows: R. Terebinth. venet. ʒij., sapon. hispan. ʒiij, pulv. glycyrrhiz. q. s. m. ut ft. massa. in pil. cx. dividend. Of these, the patient is to take ten pills daily, viz. five in the morning, and five in the evening. If a more active combination be required, he prescribes saffron and rue, in conjunction with the turpentine.—R. Terebinth. venet. ʒij. Pulv. fol. croci. sativ. et rutæ. graveol. *ãã.* ʒi. m. ft. massa in pil. lxii. divid.

Dr. Moulin is the author of the second paper. Its title, "Of the Diagnosis and Treatment of Amenorrhœa and Fluor Albus—Success in bleeding in these diseases," at once indicates the remedy on which he places his main reliance. He premises some very judicious remarks on the necessity of a physician who lives in a large city, being constantly on the alert, when consulted for amenorrhœa, to distinguish truth from falsehood, and a patient truly interesting by her situation, from a vile creature, who wishes to hide a fault by the commission of a crime. In adverting to the extreme difficulty, not to say impossibility, of distinguishing, for the first two months, amenorrhœa from the cessation of the menses the consequence of pregnancy, M. Moulin takes occasion to notice the superior safety of blood-letting over the common emmenagogues, in cases where gestation has commenced. He adds, that if this state of things really exist, the blood, when cooled, will exhibit on the surface of the fibrine a whitish cloud, which becomes more and more evident as pregnancy is advanced, and is often changed, during the latter months of this period, into a pleuritic coat.

Our medical brethren in this country are too well prepared, both by general reasoning, and by their own experience of the frequent success of venesection, as well for the relief of the uterus in amenorrhœa, as for that of other organs brought into morbid association, to require of us any elaborate commentary on the benefits which will frequently result from the practice recommended by Dr. MOULIN.—For ourselves, influenced by our observation of the state of the functions generally in suppressed menstruation, and by the conviction of its being more generally the effect than cause of other diseases, we most commonly, if not universally, make venesection precede other remedies.—*N. A. Med. and Surg. Jour. No.* 9.

2. *Hydrocyanic (Prussic) Acid in Chorea.*—In the Journal above quoted, is a detail of the successful treatment of two cases of Chorea, by JOHN STUART, Surgeon, of Kelso. The remedy chiefly relied on, after purging had been practised, was the hydrocyanic acid. The first patient, aged thirteen years, began the use of this medicine, October 27, 1826, in doses of four drops every two hours, and continued it until the 24th November; having, during one period of forty hours, taken ninety six drops of the acid. On the 10th of December, the girl was described as being quite well, and as having become very fat and stout.

In the second case, of a girl aged thirteen years, the first dose of the acid made her very sick, and caused violent vomiting; but the succeeding doses only occasioned uneasiness of stomach and bowels, and head ache. An increase of the dose to three drops was followed by violent retching, upon which the quantity was again reduced to two drops. Gambouge pills were directed, in alternation with the acid. On the 27th May, six weeks after the patient had been placed under the above treatment, she was declared to be convalescent.—Mr. STUART particularly insists on the necessity of care being taken that the medicine is genuine. The best way to give it, is, he thinks, in simple distilled water, or, if it should be apt to excite nausea, in cinnamon or peppermint water; and, on account of its great liability to spontaneous decomposition, the mixture should never be made to last longer than twelve hours. This last advice is worthy of especial remembrance.—*Ibid.*

3. *On the Nature and Treatment of Colica Pictonum.* By GUERIN DE MAMERS, M. D. P.—Such is the title of a very instructive pa-

per in the *Annales de la Med. Physiol.* for August. The author sets out with announcing the following propositions. 1. Neither pain on the one hand, nor, on the other, acceleration of the pulse and augmented heat, are sufficient data on which to presume, in the first instance, a real disorder of the nervous system, and in the second, an unequivocal affection of the sanguiferous system. 2. Inflammation may exist even to a great extent, without any of the symptoms peculiar to a disorder of the blood-vessels, (such as heat, and pulsation of the arteries.) 3. These symptoms may exist in all their intensity, without any true corresponding inflammation, and merely indicate at this time a state of simple congestion. 4. And even though these same signs should be associated with pain, there does not necessarily result a compound state of simultaneous disease of the nervous and circulatory systems, any more than when the disease has been ushered in by the above symptoms, and pain has supervened at a subsequent period. Things may be in such a state on this occasion as merely to indicate a simple nervous or sanguineous affection, joined only in one case with disordered innervation, on the other with disturbed circulatory movements.

In colica pictonum, then, continues our author, there may be phlegmasia, notwithstanding the absence of all the symptoms peculiar to an affection of the sanguiferous system; as likewise the union of all these symptoms may be insufficient to enable us to pronounce, with certainty, on the existence of a phlegmasia. We are to be guided more in our prognosis, by the length of time which has elapsed from the invasion of the malady, by the particular nature of the pains—their return by exacerbations, joined to their relief by pressure, cold, and special sedatives of the nervous system, of their exasperation by these same methods, and their continuance. He considers colica pictonum as an affection essentially *nervous:* in the commencement it presents no other character, but if not arrested in its course, the irritation, which at first only affected the nervous system, is soon propagated to the sanguiferous, and then the disease can no longer be considered nor treated as at first, that is, as purely nervous. The capillaries distributed to the affected part, have undergone, both in their organic conditions, and their vitality, a marked and profound modification, and the disease has now assumed all the characters of a true phlegmasia; that is to say, a morbid condition, the last element of which (sanguineous irritation) may be more or less evident.

but which has not the less a positive existence, diagnostic symptoms, and peculiar therapeutical treatment. On this distinction rests the secret of the successful management of the disease in question, and by it we can explain the successful or unsuccessful manner of treating it. Up to the present time, our best observers have neglected to indicate with precision the epoch in which the irritation of the sanguineous capillaries of the digestive mucous surface is associated with the irritation of the nerves distributed to this tissue, or to the muscular coat; in other words, to indicate the time when gastro-enteritis supervenes on *colic*, and the depression gives way to the tumefaction of the abdomen, and slowness to frequency of the pulse.—Dr. GUERIN DE MAMERS concludes his essay by a critical examination of the treatment of colica pictonum pursued at the Hospital de la Charite, in Paris, and by Dr. RANQUE of the Hotel Dieu, in Orleans. This disease is, he contends, an affection essentially of the same nature, and consequently to be treated, not indeed always by the same means, but agreeably to the same principles. The varieties to be met with in the different cases are relative not any specific difference in its nature, but to the different stages in which it is observed and treated.—*Ibid.*

4. *Colica Pictonum, treated by Dr. Ranque, Physician to the Hotel Dieu at Orleans.*—Between the years 1820 and 1826, Dr. RANQUE has treated 147 cases of colica pictonum in the above hospital, without the loss of a single patient. He does not propose his method for those cases in which there are symptoms of inflammation in the abdomen. This inflammation he considers as quite a supervention, and in no way essentially connected with true colica pictonum, which is an affection of the nervous system, quite independent of phlogosis. When abdominal inflammatory symptoms appear, the disease is to be treated by leeching alone, and the treatment of the colica pictonum is to be for the time suspended.

In the uncomplicated cases of this disease, our author has invariably succeeded by the *methodus medendi* now to be described.—This method consists in a plaster over the abdomen, another over the loins, glysters, and a certain potion internally. The plaster for the abdomen is composed of, an ounce and a half of emplastrum galbani compositum, the same of emplastrum lyttæ—half an ounce of "theriaque"—one drachm of camphor, and half a drachm of sulphur. These are to be incorporated, secundem artem, and spread on a large

piece of leather, which may cover the whole front of the abdomen. Previously to its application, however, the plaster is to be warmed, and a drachm and a half of tartar emetic, mixed with some camphor and sulphur, is to be spread over its surface. The plaster over the loins is to be made in the same way as that for the abdomen, with the exception of the tartar emetic, which is to be omitted. Those parts which are in pain, in any other region of the body, are to be rubbed with a liniment, into the composition of which the extract of belladonna enters pretty freely. A mixture is also taken internally, each dose of which contains twenty drops of the ethereal tincture of belladonna, (one ounce of the powdered leaves infused for three days in three ounces of sulphuric ether,) drinking plentifully of barley water, with or without gum arabic. The patient is to take no solid food whatever, and indeed as little of any kind of nourishment as possible. The lavement made use of by Dr. RANQUE, is composed of a decoction of linseed, four ounces of oil, and twenty drops of the tincture of belladonna above described. The lavement and the potion are to be taken every day. On the third day, the abdominal plaster is removed—the lumbar one is allowed to remain on. If, however, the colicky pains should not have ceased by the third day, which they generally do, the abdominal plaster is to continue on some time longer. In such cases there will be a plentiful crop of antimonial pustules, and much cutaneous irritation, for which fomentations and poultices must be employed.

The cure required from two to twenty-five days. One hundred and twenty-nine were cured between the second and twelfth day—the remainder between the thirteenth and twenty-fifth day. In almost every case the vomitings ceased on the second day of the treatment. By the fifth day the abdominal pains ceased in the great majority of cases. On the sixth day the pains in the limbs ceased, and the constipation was overcome soon afterwards; which was the prelude to restoration of health.

The success which Dr. RANQUE obtained by this method in colica pictonum, induced him to extend it to some other affections; viz. to chronic vomitings (of apyretic character)—to tetanus, (not traumatic)—to epilepsy, considered dependent on abdominal derangement—to puerperal mania, &c.; and in various cases he has been fortunate.—*Med. Chirurgical Review, October.—Ibid.*

5. *On the Inflammation of the Membrane of the Aqueous Humour.* By Dr. WEDEMEYER.—A scrofulous, rheumatic, and arthritic predisposition, contusions of the eye, and inveterate syphilis, Dr. Wedemeyer considers as capable of producing the inflammation in question. The signs which he has observed to characterise it, are little pain in the eye or external redness, want of transparency of the internal surface of the cornea, at the commencement, although the external surface remains moist and shining; subsequently small opaque spots on the internal surface, and cloudiness of the cornea. The aqueous humour is also cloudy, it is secreted in unusual quantity, and constitutes a true acute dropsy of the anterior chamber; the patient becomes near-sighted, (myoptic,) his sight is much affected; often the march of the disease is very rapid, blood is effused in the anterior chamber, and afterwards pus; sometimes the inflammation extends to the iris, the colour of which part then changes.—These symptoms disappear more or less slowly under the influence of an antiphlogistic and revulsive treatment, but collyria and other local means are of little utility.—*Laugenbeck: neue Bibliothek fur die chirurgie und Ophthaluologie; tom. 4. p. 66.—Amer. Journal of the Medical Sciences.*

6. *Injurious effects produced in Children by Protracted Suckling.* By EDWARD MORTON, M. B. L. M.—Dr. Morton is of opinion—"1st. That if children are suckled for an undue length of time, (any period beyond nine or ten months,) they will be liable to be effected, in consequence, with inflammation of the brain." "2d. That the same effects will take place in infants if suckled by women who have been delivered an undue length of time, although the infants themselves may not have been at the breast for too long a period." "3d. That, if they should not become affected with the disorder in question, during, or soon after the time they are thus improperly suckled, they will nevertheless acquire thereby a predisposition to cephalic disease at some future period of their lives." "4th. That children who are suckled for an undue length of time, when labouring under other diseases, will be much more liable to have the head secondarily affected than other children."—*Lond. Med. and Physical Journ. August*, 1827.—*Ibid.*

7. *Pulsation in the Veins.*—A very interesting case of this is recorded by Dr. DAVIES, in the fourth volume of the *Dublin Hospital*

Reports. It occurred in a girl aged six years, labouring under acute hydrocephalus, which terminated fatally. There "was a pulsation in all the veins, distinct and well marked, synchronous with that of the arteries, and in the veins of the extremities, perceptible to the eye, even at the distance of two yards. The veins were larger than is usual at her period of life, and pressure upon any of them stopped the pulsation between the part compressed and the heart, so that it obviously could not be caused by regurgitation from the auricle.—The pulsation in the part of the vein, towards the extremity, was rendered much stronger, and more distinct, provided the return of the blood to the auricle was not completely obstructed; but if the compression was so strong as entirely to obliterate the calibre of the vein, that part of it which became tense and distended with blood so far as the next valve, after a few seconds, lost the pulsation altogether. The pulsation of the heart was somewhat stronger than usual at her age; the pulsation of the veins was softer than that of the arteries, and was completely stopped on compression of these latter vessels." The arteries were injected after death, "but presented no preternatural communication whatever with the veins, neither could any artery be discovered in the immediate vicinity of these latter vessels which could throw a doubt on the fact, that the pulsation had been continued from the heart, through the arteries and capillaries to the veins."—*Ibid.*

8. *Strictures of the Urethra.*—"From numerous observations, M. Dupuytren has proved, that it is not only useless but dangerous, to attempt to surmount, by violence, a stricture of the urethra, in cases of mere dysuria; that violence ought only to be employed in cases of retention which are accompanied with very threatening symptoms; but that in all other cases, the bougie should be introduced very carefully into the urethra, or at least by its introduction only to remove so much of the urine as may enable us to gain time, that we may hereafter surmount the obstacle without employing violence. The process which consists in overcoming the stricture gently, patiently, and slowly, is certainly that which is most proper in a great majority of cases. Now, this dilatation can be performed in two very different ways. In the first, which is the one most generally practised, a bougie, which is very slender at its extremity, is introduced into the stricture, and by pressure upon the tissues which form the obstacle, a dilatation is mechanically made. This is called by M. Dupuytren,

the *mechanical* dilatation. In the second mode, which in opposition to the former, he calls *vital* dilatation, he does not introduce the bougie at all within the stricture: he stops when he comes to the stricture with a blunt bougie, and fixes it before it, waiting the effect which it must produce, and the change that must necessarily take place in the vitality or existing state of the organic tissues, with which the bougie has come in contact. This distinction is real, and M. Dupuytren has often proved to us, by incontestible facts and conclusive experiments, the necessity and importance of this distinction.—Indeed it has very often happened to him, after having fruitlessly presented to the stricture of the urethra the extremity of a very fine pointed bougie, without being able to introduce it, that he has then introduced a blunt catheter of elastic gum, the extremity of which, however, did not penetrate so far as the slender pointed bougie, and fixed it before the stricture. In six or eight hours after it had remained in this situation, it would pass it without difficulty, and reach the bladder with ease, requiring very little force of the hand to propel it.

Case 1.—*Stricture at the bulb of the urethra—dysuria—mechanical dilatation.* Pino, aged forty-two, entered the Hotel Dieu, Feb. 28, 1827, on account of a dysuria of ten years standing, which succeeded two attacks of gonorrhea virulenta, the latter of which had been followed by a gleet for twenty-two years. The jet of urine had diminished in volume by degrees, till it only flowed drop by drop, especially after drinking alcoholic liquors. Finally, the symptoms became so urgent, that he was induced to enter the hospital. The first of March, a bougie with a very slender point was introduced into the urethra, and it entered a stricture in the region of the bulb which held it so closely that it was with some difficulty retracted.—The bougie was directed to be kept fixed in this place, and at the end of eight hours only a moderate force was requisite to introduce it into the bladder. March 4, a catheter of gum elastic, of medium caliber, was easily introduced; other catheters of larger size were after this easily introduced, and suffered to remain a considerable time. After following this process of mechanical dilatation for twenty-two days, the patient voided his urine freely, and in a full stream.

Case 2.—*Stricture—dysuria—mechanical dilatation.*—Dervoise, sixty-one years of age, of a medium height, and a dry temperament, had sixteen years before contracted a gonorrhea, which was followed by a gleet that continued until he entered the Hotel-Dieu, Feb.

19, 1827. The dysuria had been of two years continuance, and it had increased till the urine was only voided by drops, and with great effort. From the account given by the patient, it was presumed that there was a stricture in the urethra. A bougie being introduced which had a slender point, it was at first stopped by meeting a membranous portion; a light pressure, however, made it penetrate through this obstacle, and the larger part of the instrument was introduced through it without great difficulty. This dilatation was continued twenty-four hours, when a gum elastic catheter of small caliber was employed. Five catheters of different sizes, beginning with the smallest, were successively employed, and one of them was kept in the urethra to produce permanent dilatation. On the thirty-ninth day a catheter of the largest caliber passed with ease, and the patient discharged his urine freely and in a full stream. No accident interrupted the cure.

Case 3.—*Stricture—dysuria.*—This was the first case of *vital dilatation* in M. Dupuytren's practice. Mr. ——, of a very irritable, nervous temperament, eight or ten years since, applied to M. Dupuytren for a dysuria with which he had been harassed for several days. After many difficulties on the part of the patient, a blunt pointed bougie was introduced until it reached an obstacle in the urethra, which stopped its progress. The extreme apprehension of the patient prevented any further attempt, and the instrument was left fixed just before the obstacle, without its entering the stricture. At the end of a few hours, M. Dupuytren returned, and found that the patient had voided his urine without difficulty, and the bougie could be passed easily into the stricture. Some hours afterwards, the instrument could be introduced still further, and in the course of the day it reached into the bladder. From that time, catheters of the largest size were employed, the dilatation was rapid, and the patient was able to discharge his urine in a large and free stream, at the end of a fortnight.

After the event of this case, M. Dupuytren was induced to turn his attention to the kind of cases to which this practice is more particularly applicable. It is in many instances the most proper treatment, particularly with the irritable and the timid, and it is not always necessary that the bougie should penetrate through the stricture, in order to complete the dilatation. From that date, he has met with several similar cases with the same success. We shall relate one or two of the more recent.

Case 4.—*Stricture of the membranous portion, with a very evident spasm of the urethra, and incontinence of urine—vital dilatation* Colomb, aged thirty-six, entered the Hotel-Dieu, Feb 6, 1827, labouring under a dysuria which had been progressively increasing for four or five months. The urine was discharged drop by drop, and when he ceased making an effort it continued moderately to distil from him without his being able to retain it. The sound having met with a hard stricture before the membraneous portion, a bougie was introduced as far as this obstacle, but the intractable patient withdrew it within an hour. In the evening a fruitless attempt was made to replace it, but there was so great a spasm of the urethra that it could not be carried further than the fossa navicularis, where it was closely locked by the parietes of the canal. For two days the same spasmodic state continued. M. Dupuytren introduced and fixed in the fossa navicularis a bit of a large sound, rounded at the point. At first it remained stationary, but at the end of twenty-four hours it was introduced farther, and finally was replaced by a catheter of a medium caliber. This dilatation being continued twenty days, by gradually increasing the size of the catheters, the patient could void his urine freely in a large stream, when at the end of this period he was discharged. In two other cases in which the same symptoms were treated in the same method, the re-establishment of the course of the urine was completed, in the one, in twenty-two days, and in the other, in thirty."—*Med. Recorder, No.* 41.

ORIGINAL INTELLIGENCE AND NOTICES.

---

1. Lectures on Phrenology.

Professor Caldwell, the eloquent and zealous Phrenologist of America, is about to deliver a course of Lectures on this science, in the Western Museum of this city.

2. Cincinnati Medical Academy.

The General Assembly of Ohio, at their late Session, on the application of Dr. Barnes, of this city, incorporated an Institution under the above title. We are not informed whether it will certainly go into operation by the ensuing autumn.

3. Graduates of the Medical College of Ohio.

At a public commencement held on the 11th instant, the degree of Doctor of Medicine was conferred on the following candidates:

Francis Bergen, Prussia, Europe,—on Irritation.
Robert Boal, Reading, Ohio—on the Circulation of Blood.
Edward H. Bradbury, Cincinnati, O.—on Delirium Tremens.
Benjamin S. Brown, Zanesville, Ohio,—on Ideosyncracy.
Amos Hough, Hamilton, Ohio,—on Dysentery.
Thomas H. Howes, Madison, Indiana,—on Dyspepsia.
Hiram C. Hubbard, Buckingham County, Va.,—on Croup.
Robert I. Huntingdon, Jefferson County, Ohio,—on Scarlet Fever.
Thomas J. Nichols, Richmond, Ohio,—on Hygiene.
Cunningham S. Ramsay, Cincinnati, Ohio,—on Sleep.
Timothy M. Rogers, Franklin, Mississippi,—on Billious Fever.

The honorary degree of M. D. was conferred upon Dr. Charles Woodworth, of Mississippi.

4. Graduates of Transylvania University.

At a commencement held in the Chapel of Transylvania University, on Wednesday the 12th of March, 1828, the degree of Doctor of Medicine was conferred upon the following gentlemen, *alumni* of

the School, who have written and defended Theses upon the subjects annexed to their names.

KENTUCKY.

Stephen Walker Bates, on Hernia Humoralis.

George Washington Campbell, on Suspended Animation.

Henry William Coburn, on Morbid Sensibility of the Stomach and Bowels.

William R. Davis, on Fever.

Warren Frazer, on Organic and Functional Diseases of the Heart.

James St. Clair Leavell, on Dyspepsia.

John Whittingdon Long, on Dyspepsia.

Augustus William Mills, on the Medical properties of Secale Cornutum.

Thomas Shelton Moborly, on Gonorrhœa.

Jehu Perkins, on Cholera Infantum.

Thomas Jefferson Pollard, on Cynanche Trachealis.

Lemuel Saunders, on Chlorosis.

William Cooper Turner, on the Dependence of Functions.

Joseph Smith Wallace, on Phlegmasia Dolens.

John Warren, on Hygieine.

William Wilcox Warren, De Febre puerperalia.

Ferdinand Fox Young, on the Modus Operandi of Medicines.

TENNESSEE.

John Jefferson Franklin, on the Humulus Lupulus.

William McKendree Gwin, on Syphilis.

Leander Hughes, on Fistula in Ano.

Robert Nicholson, on Chlorosis.

Samuel Crockett Sloan, on Inflammation of the Liver.

Sydney Smith, on Purulent Opthalmia.

Littleberry Williamson White, on Fever.

Chesterfield Lewis Wilcox, on Secretion.

VIRGINIA.

Abraham Adams, on the internal changes produced by the remote causes of Fever.

Absalom Walker Scales, on the use of the Bandage in Gun-Shot Injuries.

Samuel Glover Shaw, on Dysentery.

James Clay Sullivan, on Aneurism.

Milton Vaughan, on the processes instituted by Nature for Suppressing Hæmorrhage.

SAMUEL VAUGHAN WATKINS, on the effects of Cold upon the Human System.

SOUTH CAROLINA.

JAMES ANDERSON, on the Diseases of the Schneiderian Membrane.
WILLIAM ASKINS ARDREY, on the Liver.
VIRGIL BOBO, on the Datura Stramonium.
THOMAS JEFFERSON BRASELMAN, On Typhus Fever.
HUGH HUGHER TOLAND, on the Medicinal properties of the Genus Lobelia.
LAWRENCE JEFFERSON TROTTI, on Gastritis.

NORTH CAROLINA.

LAWSON MARSHALL CALDWELL, on Pneumonia Biliosa.
THOMAS HARRIS, on Dysentery.
WILLIAM JOHN MILLER, on Syphilis.
RICHARD HENRY NORRIS, on Dyspepsia.

ALABAMA.

TURNER DELLENY BELL, on Hydrocele.
DAVID HENRY MASON, on Debility of action in Inflammation.
JAMES GEORGE MAULL, on Acute Hepatitis.
HIRAM A. G. ROBERTS, on Inguinal Hernia.

GEORGIA.

ELIAS BEALL, on the Bandage.
ROBERT JONES LAWRENCE, on Cholera Morbus.
NATHANIEL NEWTON SMITH, on Inflammation.

LOUISIANA.

WILLIAM AUGUSTUS FICKLIN, on the uses of the Bandage.

MISSOURI.

JOHN HALDERMAN, on Dysentery.

MARYLAND.

STEPHENS RITTENHOUSE BEATTY, on Congestive Billious Fever.

The honorary degree of M. D. was also conferred upon THOMAS P. SATTERWHITE of Lexington, Kentucky, and CHARLES DOUGLASS of Tuscumbia, Alabama.

G. W. SHORT, M. D. Dean.